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Ongoing Monitoring Interpretive Report 2021 - 2023

PFAS OMP - RAAF Base Richmond

17-May-2023
PFAS Ongoing Monitoring Plan - RAAF Base Richmond
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PFAS OMP - RAAF Base Richmond

Client: Department of Defence

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List of Acronyms

Acronym	Term
ADWG	Australian Drinking Water Guidelines
AECOM	AECOM Australia Pty Ltd
AFFF	Aqueous Film Forming Foam
AIR	Annual Interpretive Report
ASC NEPM	Assessment of Site Contamination National Environment Protection Measure
BoM	Bureau of Meteorology
CBD	Central Business District
CFA	Clarendon Formation Aquifer
CSM	Conceptual Site Model
Defence	Department of Defence
DO	Dissolved Oxygen
DoH	Department of Health
DSI	Detailed Site Investigation
EC	Electrical conductivity
EPA	Environment Protection Authority
FSANZ	Food Standards Australia New Zealand
GW	Groundwater
GWE	Groundwater Elevation
HEPA	Heads of Environment Protection Authority
HHRA	Human Health Risk Assessment
IR	Interpretive Report
LFA	Lowlands Formation Aquifer
LGA	Local Government Area
LOR	Laboratory Limit of Reporting
MW	Monitoring Well
NEMP	National Environmental Management Plan
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OMP	Ongoing Monitoring Plan
ORP	Oxidation Reduction Potential
PAC	Powdered Activated Carbon
PFAS	Per- and poly-fluoroalkyl substances
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid

Acronym	Term
PFHxS	Perfluorohexanesulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control
RAAF	Royal Australian Air Force
RAP	Remedial Action Plan
RWQMP	Regional Water Quality Monitoring Program
SAQP	Sampling and Analysis Quality Plan
SD	Sediment
STP	Sewage Treatment Plant
SW	Surface Water
SWL	Standing Water Level
TDI	Tolerable Daily Intake
TWP	Trade Waste Plant

Units	Term
%	percent
°C	Degrees centigrade
g	Grams
ha	hectare
km	Kilometre
L	Litres
L/s	Litres per second
m^3	Metres cubed
m AHD	Metres Australian Height Datum
M btoc	Metres below top of casing
mg/kg	Milligrams per kilogram
Mg/L	Milligrams per litre
ML	megalitre
mm	millimetres
mV	millivolts
t	tonnes
µg/L	Micrograms per Litre
µS/cm	Microsiemens per centimetre

Executive Summary

Introduction

AECOM Australia Pty Ltd (AECOM) was engaged by the Department of Defence (Defence) to implement the Ongoing Monitoring Plan (OMP) (Defence, 2019a) for monitoring of select per- and poly-fluoroalkyl substances (PFAS) at Royal Australian Air Force (RAAF) Base Richmond (the 'Site').

This Ongoing Monitoring Interpretive Report summarises the results of the monitoring undertaken between December 2020 and June 2023. Scheduled sampling events were completed in May 2021, November 2021, May 2022, November 2022 and May 2023).

This report provides interpretation of changes in concentrations and distribution of PFAS that may have occurred during the reporting period, or in comparison to previous reporting periods.

Objective

The overarching objective of implementing the OMP is to provide information on changes in the location and concentrations of PFAS within on-Site and off-Site management areas, herein collectively referred to as the Management Area (refer to **Figure 1** and **Figure 2** in **Appendix A**). The data is required to assist risk management decisions by Defence and State Government agencies to protect human health and the environment.

Monitoring Scope

AECOM completed periodic monitoring of groundwater, surface water and sediment between December 2020 and June 2023 in accordance with the Sampling and Analysis Quality Plan (SAQP) developed by AECOM (2023d). This monitoring targeted PFAS, namely perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA) and perfluorohexanesulfonic acid (PFHxS) and included selected locations in the Management Area.

Interpretive Assessment

Data collected during the monitoring period were compared to historical data for the included sampling locations and the following was observed:

- PFAS concentrations were generally lower at off-Site locations than those observed at on-Site locations in groundwater, in the vicinity of identified source areas. This is expected and consistent with previous monitoring
- Some localised increases in PFAS concentrations in groundwater were reported in a number of locations on-Site and off-Site and are attributed to higher than average rainfall events experienced in 2021 and 2022. This is likely caused by rising groundwater that can sometime mobilise PFAS suspended in the soil profile which are largely in the vicinity of on-Site source areas
- Decreases in PFAS concentrations were observed in groundwater in the vicinity of the Former Fire Training Ground (FFTG). This is expected to be a positive result of remediation that was completed in 2021.

What is an 'order of magnitude'?

This refers to something decreasing or increasing by multiples of ten. For instance, an increase from 10 to 100 is an order of magnitude increase. When assessing changes in PFAS concentrations at an individual location, all concentrations are considered when determining trends, but order of magnitude changes are discussed separately as they represent a significant change in concentrations from what was reported in the previous event.

If a change is close to established health or environmental criteria, it will also be considered significant.

PFAS concentrations in surface water and sediment at locations on-Site and off-Site were generally consistent with historical results.

Groundwater Results

During the monitoring period, groundwater was inferred to flow from the Site in a northerly, northwesterly and northeasterly direction towards the Hawkesbury River, which was generally consistent with the historical flow directions.

The measured depth to groundwater was typically shallower (closer to the ground surface) during the monitoring period, particularly following extreme weather events in 2021 and 2022, than previously reported.

The groundwater PFAS plume[1] extents were generally consistent with the plume presented in the 2020 Annual Interpretative Report (AIR) (AECOM, 2021d), with the exception of the following changes identified during this monitoring period:

- Decreasing PFAS concentrations in groundwater at MW040 located in the FFTG following the completion of soil remediation works
- Higher PFAS concentrations were reported on the northern boundary of the Site at MW107I. These increases are inferred to be in response to high rainfall mobilising PFAS from the soil at this location. Therefore, remediation activities are planned for this area which are scheduled to commence in late 2023 to ensure this PFAS does not leave the Site boundary
- MW143 and MW144 were installed to replace MW098 and MW099 which were destroyed during flooding events in March 2021. The new wells were installed along Cupitts Lane south of Cooley Creek within the same hydrogeological unit as the destroyed wells. MW143 and MW144 were sampled for the first time in May 2023, reporting PFAS concentrations an order of magnitude higher than was previously reported at MW098 and MW099. The surface water concentrations nearby these wells were similar, and it is possible the PFAS detects in groundwater are likely to be a result of surface water transport during the flood events. The concentrations here will be monitored for changes at the next sampling event.
- Increasing PFAS concentrations in on-Site well, MW051 in the area used by Fitters, within the alluvial aquifer. This impact was considered to be localised and unlikely to be migrating due to the decreasing PFAS concentrations in down hydraulic gradient wells.

Surface Water Results

The nature and extent of the PFAS impacts in surface water are generally similar to the previous monitoring period, as presented in the 2020 AIR (AECOM, 2021d) with highest concentrations reported in on-Site locations at SW001 and SW002. Off-Site surface water PFAS impacts have been noted to increase during the current monitoring period, which are likely to be attributed to a number of factors including increased PFAS discharge from the Site resulting from increased rainfall observed, tidal fluctuations in the Hawkesbury River, mobilization of PFAS from up gradient sources and increased surface water volumes within the wider Hawkesbury River catchment. This may be also attributable for the reported PFAS concentrations in off-Site groundwater as described above.

There were first-time detects reported at SW018 located down-gradient of SW009 in Rickabys Creek, where the creek discharges to the Hawkesbury River. The location further down gradient of SW018 is SW030 located in the Hawkesbury River which reported lower concentrations of PFOS+PFHxS. New maximum PFOS+PFHxS concentrations were also reported at SW005 and SW037, located within the on-Site Management Area. These changes in surface water contamination distribution are likely to be attributed to the increased rainfall observed at the Site during the monitoring period resulting in surface transport of PFAS from the known source areas.

[1] PFAS contaminant plumes are areas of groundwater with elevated PFAS concentrations that are slowly moving from the source areas in the same direction that the groundwater flows.

Sediment Results

The concentrations of PFAS generally remained within historical ranges over the monitoring period. The highest PFAS concentrations in sediment samples were at SD001 (located within the FFTG). There were new detects of PFAS in sediment in off-Site locations to the east, south, north and north west in 2021.

The changes in the distribution of PFAS in sediments at and surrounding the Site are attributed to the increased rainfall observed at the Site during the monitoring period.

Risk Summary

The Conceptual Site Model (CSM) was developed during the investigation stages) and is summarised in the OMP. The CSM described the links between PFAS sources, transport pathways, and possible exposure scenarios. The OMP monitoring between December 2020 and June 2023 has provided additional data to further understand the changing conditions of the PFAS concentrations in groundwater, surface water and sediment.

While there have been localised decreases and increases in PFAS concentrations in groundwater, surface water and sediment, there is currently no evidence that the overarching risk profile has changed based on the current land use within the Management Area

Conclusions

The monitoring conducted over the period covered within this report is considered to have met the objectives of the SAQP (AECOM, 2023d) and the overall OMP (Defence, 2019a). The following conclusions are based on the data collected during the monitoring period:

- Groundwater depths in 2019 and 2020 (and in some cases in 2017) were reported to be lower than more recent events, which can be attributed to the historically drier conditions observed on the Site during these times, in comparison to higher rainfall conditions observed since February 2020. Overall, the concentrations of PFAS in groundwater, surface water and sediment were generally consistent with the concentrations reported in the 2020 AIR with the exception of new maximums and new detects at selected locations likely attributed to significant rainfall events during the monitoring period
- The groundwater plume extents are generally consistent with the representation presented in the 2020 AIR, with the exception of an apparent extension to the low-level concentration plume in the north due to first-time detects in newly installed monitoring wells in this area. Further monitoring will be undertaken to better understand these results.
- Concentrations of PFAS in groundwater have been observed to decrease in the primary PFAS source area at the FFTG, while localised increases have been detected on-Site. The increase in PFAS concentrations detected on the northern boundary, may have the potential to increase the risk profile from PFAS impacts present in groundwater in this area. Therefore, future remediation activities are planned for this area
- Elevated PFAS concentrations were detected in Rickabys Creek following significant rainfall events however, this is not considered to change the overall risk profile of the Site, given there is no change to the source, receptor and pathways. In general, surface water concentrations were similar to the concentrations reported in the 2020 AIR
- The CSM was reviewed, and based on the results presented within this report, no changes were identified to source, pathway or receptors at the Site and within the Management Area
- Based on the data collected during the monitoring period, no changes to the risk profile were made, and no triggers have been identified which would require a review of the OMP. It is noted that the potential PFAS exposure to off-Site land users within the off-Site Management Area is currently managed through NSW Government precautionary advice by the NSW Environment Protection Authority.

The monitoring network is considered generally appropriate and sufficient for the program objectives. It is recommended that the ongoing monitoring program of groundwater, surface water and sediment is continued to monitor the extent of PFAS, potential migration and any associated risk changes.

1.0 Introduction

AECOM Australia Pty Ltd (AECOM) was engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at Royal Australian Air Force (RAAF) Base Richmond (the 'Site'). The Site is presented on **Figure F1** in **Appendix A**.

In order to meet the objectives of the OMP, the monitoring was undertaken in accordance with the *Sampling and Analysis Quality Plan* (SAQP) (AECOM, 2023d, Rev K dated 2 May 2023). Note that the SAQP is generally updated prior to each monitoring event.

This Interpretive Report (IR) has been prepared in general accordance with the Defence (2022) *PFAS OMP Annual Interpretive Report Guidance* (Version 0.4) issued in October 2022 (Defence, 2022). The report summarises the results of the monitoring completed in the monitoring period from December 2020 to June 2023 (hereafter referred to as "the monitoring period").

1.1 Purpose and Objective

The objective of the OMP is to set out a program of monitoring to continue to assess the changes in the nature and extent of PFAS within the environment, where Defence's historical use of legacy aqueous film forming foam (AFFF) has led to an identified potentially elevated risk to a receptor, or potential future risk to a receptor within on-Site and off-Site management areas, herein collectively referred to as the Management Area (as shown on **Figure F2**, **Appendix A**).

The OMP (Defence, 2019a) aims to achieve the following:

- An evidence base for targeted and effective risk management of PFAS contamination to protect human health and environmental receptors
- An early indication that additional management of PFAS contamination may be warranted in areas not currently affected by PFAS.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PFAS Management Area Plan (PMAP) (Defence, 2019b).

1.2 Scope

The scope of works for this IR is to assess changes to the nature and extent of select PFAS over the monitoring period and evaluate if these changes have implications for the understanding of the Conceptual Site Model (CSM) and the risk profile with respect to PFAS impacts at the Site.

This included the evaluation of data reported during the current monitoring period in the following biannual reports, which are included in **Appendix B**:

- Sampling Event Factual Report, May 2021 – PFAS OMP, RAAF Base Richmond. 8 July 2021 (AECOM, 2021a)
- Sampling Event Factual Report, November 2021 – PFAS OMP, RAAF Base Richmond. 29 April 2022 (AECOM, 2022b)
- Sampling Event Factual Report, May 2022 – PFAS OMP, RAAF Base Richmond. 20 December 2022 (AECOM, 2022f)
- Sampling Event Factual Report, November 2022 – PFAS OMP, RAAF Base Richmond. 21 April 2023 (AECOM, 2023c)
- Sampling Event Factual Report, May 2023 – PFAS OMP, RAAF Base Richmond. Revision 0, 3 August 2023 (AECOM, 2023e).

The findings in the following factual reports have also been considered in the review of the CSM and overall PFAS impacts at the Site:

- Memorandum – RAAF Base Richmond – Event #3 Sampling Results – January 2021. 13 July 2021 (AECOM, 2021b)
- Memorandum – RAAF Base Richmond – Event #4 Sampling Results – November 2021. 29 April 2022 (AECOM, 2022a)
- Memorandum – RAAF Base Richmond – Event #5 Sampling Results – February 2022. 23 September 2022 (AECOM, 2022c)
- Memorandum – RAAF Base Richmond – Baseline Event #4 Sampling Results – January 2022. Revision B, 1 November 2022 (AECOM, 2022d).

The findings of the OMP reports were reviewed with consideration to the following non-OMP reports:

- Short Form Remedial Action Plan – PMAP Delivery, RAAF Base Richmond. 10 September 2020 (AECOM, 2020a)
- PFAS Mass Flux Report – PMAP Delivery, RAAF Base Richmond. 1 October 2021 (AECOM, 2021c)
- Remediation Data Gap Assessment Report – Base Wide RAP – PMAP Delivery, RAAF Base Richmond. 13 October 2022 (AECOM, 2022e)
- Targeted Groundwater Investigation – PMAP Delivery, RAAF Base Richmond. 3 April 2023 (AECOM, 2023b)
- Base Wide Remedial Action Plan Addendum – Short Form Remedial Action Plan – PMAP Delivery, RAAF Base Richmond. 6 April 2023 (AECOM, 2023a).

AECOM also compared data presented in this IR to the data presented in the 2020 AIR (AECOM, 2021d).

2.0 Site Setting

2.1 Site Description

The site identification and setting are summarised in **Table 1**, below:

Table 1 Site Identification and Setting Summary

Element	Description
Site ID	0902
Site Location	The Site is approximately 55 km northwest of the Sydney Central Business District (CBD) and is located in the Hawkesbury City Council local government area (LGA), as shown in **Figure 1** in **Appendix A**.
Regional Meteorology	The Bureau of Meteorology (BoM) Richmond RAAF weather station (number 067105) has recorded data since 1993 (temperature) and 1994 (rainfall) and presents a record of approximately 30 years. Review of the available BoM data for the period 1993 to June 2023 indicates the following: • Mean maximum monthly temperatures vary from 17.8°C in July to 30.4°C in January • Mean minimum monthly temperatures vary from 3.7°C in July to 17.9°C in January • Mean monthly rainfall vary from 32.1 mm in August to 115.8 mm in February • Mean annual rainfall is 768.1 mm. The mean monthly rainfall for the monitoring period is provided on **Graph G1** (in **Appendix D**).
Topography and hydrology	The previous investigations reported that the Site is characterised by a series of wide, flat alluvial terraces occurring at varying elevations above the Hawkesbury River. The majority of the Site lies on an elevated terrace defined by the Clarendon Formation and ranges from 18 to 22 metres Australian Height Datum (m AHD). This terrace includes much of the Richmond urban area and localities such as the Richmond golf course. Further to the north and east of the Site, an abrupt drop to a flood plain of the Hawkesbury River exists and is associated with the Lowland Formation. This lower flood plain terrace lies at approximately 6-12 m AHD and includes the sewage treatment plant (STP), Rickabys Drop Zone, and the surface drainage system of natural and modified drains related to Rickabys Creek and Cooley Creek. There are no natural watercourses or natural water bodies at the Site; however, several formed surface water drainage networks, constructed wetland systems and settlement ponds are present. The surface water drainage network comprises a combination of engineered open swale drains, underground stormwater pipes, pits, culverts, and detention storage. The on-Site catchments are presented in the DSI (AECOM, 2018a). The Site is surrounded by natural watercourses to the south, east and north as well as an interconnected network of rural drains on the Richmond Lowlands located to the north of the Site. Surface water from the Site discharges to rural drains to the north, as well as directly into Rickabys Creek to the east. Drainage from the Site primarily discharges in two areas (refer to **Figure F3**):

Element	Description
	• At the southeast boundary into Rickabys Creek which ultimately discharges to the Hawkesbury River • At the northern boundary adjacent to the STP through a series of agricultural drains towards Cooley Creek and Bakers Lagoon before ultimately discharging to the Hawkesbury River. *Northern Tributaries of Rickabys Creek* A series of unnamed rural drains to the northwest, north and northeast form a network of tributaries that flow through the Richmond Lowlands. Review of the topography indicated the headwaters of the drainage network commences at Pughs Lagoon approximately 3 km to the west of Site and adjacent to Richmond Township. Surface water flows generally in an easterly direction through rural properties to combine at the northern boundary of the Site at Rickabys Drop Zone, before flowing along the southeastern Site boundary before intersecting Rickabys Creek approximately 2 km upstream of its junction with the Hawkesbury River. *Rickabys Creek* The headwaters of Rickabys Creek are located approximately 13 km to the south of the Site near Cranebrook. The creek traverses residential and rural land use areas flowing generally in a northerly direction towards Windsor, before crossing under the Hawkesbury Valley Way and flowing along the boundary of the Site. At the eastern boundary of Rickabys Drop Zone, the creek is intersected by its northern tributaries which combine and flow generally in a northeasterly direction towards the junction with the Hawkesbury River at Windsor. *Cooley Creek* A series of ephemeral, unnamed rural drains to the west and northwest of the Richmond Lowlands form a surface water network that drain into Bakers Lagoon at the headwaters of Cooley Creek. Additionally, treated effluent from the on-Site STP is transferred through an underground pipe and discharged into Bakers Lagoon. At the southern boundary of the lagoon, Cooley Creek flows in an easterly direction through rural properties for approximately 3 km before the junction with the Hawkesbury River. *Bakers Lagoon* Bakers Lagoon is a key waterbody feature in the Richmond lowlands and drains to Cooley Creek in the east and to an un-named drain to the north. At the southern boundary of the lagoon Cooley Creek flows in an easterly direction towards the Hawkesbury River. During the DSI (AECOM, 2018a) the lagoon was observed to be clear of vegetation with dimensions of 120 m in width and 500 m in length. *Pughs Lagoon* Pughs Lagoon sits at the headwaters of the Rickabys Creek Tributaries and is located to the west of residential properties at Richmond and adjacent to rural properties to the west and north. During the DSI (AECOM, 2018a) the Lagoon was observed to be clear of vegetation with dimensions of 60 m in width and 500 m in length. The Lagoon discharges to an agricultural drain located to the northeast.

Element	Description
Geology and Hydrogeology	The Site is located within the Cumberland Basin, a low lying, gently dipping Tertiary aged basin situated at the western margin of the Sydney Basin (Jones and Clark,1991). The main geological units of the Cumberland Basin in the Hawkesbury-Nepean area are based on the Penrith 1:100,000 Geological Map (NSW Geological Survey). The base of the Cumberland Basin is characterised by Upper Triassic shales and sandstones of the Wianamatta Group, and represents the last deposition before younger, more unconsolidated, alluvial and fluvial deposition during the Tertiary to Holocene periods. The general geology of the Management Area can be divided into the following main geological features: • Basement Rocks formed during the Triassic period (Wianamatta Group Shales) • Unconsolidated deposits formed during the Miocene Epoch (Londonderry Clay and Rickabys Creek Gravels) • Unconsolidated deposits formed during the Pleistocene to early Holocene (Clarendon Formation) Epochs • Unconsolidated deposits formed during the Pleistocene to mid Holocene (Lowlands Formation) Epochs • Holocene consisting of gravel banks, sand islands and points bars related to the Hawkesbury-Nepean River and tributary streams. The hydrogeology of the Management Area can be divided into two subunits: *Fractured Rock Aquifers* Fractured rock aquifers include the Wianamatta Group and the Hawkesbury Sandstone which both have variable groundwater yields (Jones and Clark 1991). The Hawkesbury Sandstone aquifer has historically been the most reliable water source in the region with uses for irrigation, stock water and domestic purposes. The Wianamatta Group aquifer is characterised by yields of 0.2 - 5.5 L/s and higher salinity making it typically unsuitable for stock watering. Typical salinity for the Hawkesbury Aquifer ranges between 200 – 1,200 mg/L and is generally too saline for potable consumption, whereas the Wianamatta Group aquifer typically has salinity values ranging between 5,000 – 50,000 mg/L (Defence, 2019b). *Unconsolidated Aquifers* Younger, unconsolidated aquifers that provide more accessible water supply to areas surrounding the Site include the Clarendon Formation Aquifer (CFA) and Lowlands Formation Aquifers (LFA). The Rickabys Creek Gravel is characterised by a high matrix content of sand and clay, and stratigraphically underlies the Londonderry Formation (Jones and Clark, 1991). The Rickabys Creek Gravel was only intersected in one borehole to the east of the Site during the DSI (AECOM, 2018a), indicating that the unit may have a limited presence within the Site.

Element	Description
Vegetation	The DSI report (AECOM, 2018a) noted that the majority of Rickabys Drop Zone and portions of the Site are covered in managed grassland which is regularly mown. Remnant native vegetation on the Site is considered to be limited to the eastern and southern boundaries of Rickabys Drop Zone, along a portion of Rickabys Creek and a tributary of Rickabys Creek. Based on ecological investigations conducted at the Site, it is expected that portions of the Site would provide habitat for a range of terrestrial invertebrates, terrestrial mammals and birds. Utilisation of on-Site areas by ecological receptors is likely to be seasonal, particularly for some populations of birds. A constructed wetland is located on Rickabys Drop Zone, which comprises a number of ponds, some connected by culverts. During the DSI (AECOM, 2018a), the wetland was observed to be heavily vegetated with reeds, lilies and aquatic grasses. The DSI report (AECOM, 2018a) noted that the majority of the off-Site environment is used for agricultural and residential purposes. The agricultural land is predominantly used for intensive plant agriculture (turf farming) and market gardens. More diverse terrestrial ecological communities are considered likely to frequent the banks of Bakers Lagoon, Rickabys Creek, Cooley Creek and Hawkesbury River.
Current land use (on-Site)	• The Site comprises approximately 414 hectares of land and is an active RAAF Base and a critical Defence facility • The Site has become the home of Air Mobility Group and Number 84 Wing and is a strategically important air logistics hub for the Australian Defence Force. The Site is zoned ‘SP1 Aerodrome/Defence Services’ under the Hawkesbury Local Environment Plan, 2012. The Site comprises ‘landside’ and ‘airside’ areas: - Landside areas are partly covered by hardstand and pavement consisting of concrete, asphalt roadways and low-rise buildings which include accommodation properties and facilities - Airside areas consist of taxiways, aprons and the main runway. The Site comprises three distinct areas: • RAAF Base Richmond • Rickabys Creek Drop Zone. This area is Defence owned land and considered part of the Site, bound by Percival Street to the west, Ingolds Lane and land used for intensive plant agriculture to the north, Rickabys Creek in the east and private property to the south. This area contains Fuel Farm 2, the third Base hospital and numerous smaller support service buildings • The STP and Trade Waste Plant (TWP): Located to the north of the Site on the northern side of Dight Street. The STP and TWP are bound to the east, north and west by intensive plant agriculture (primarily turf farming).

Element	Description
Current Land Use (off-Site)	Land uses surrounding the Site currently and historically include: • Richmond Road to the south, Percival Street to the east, Dight Street to the north and residential and commercial properties to the west • Semi-rural land uses, predominantly consisting of intensive plant agriculture (turf farming) and scattered market gardens located within Cornwallis (north and east of the Site) • Rum Corps Barracks Golf Course is also located to the east of the Site • Land with primarily low density, single dwelling houses to the west of the Site within the suburb of Richmond. Immediately west of the Site is a small light industrial area and St Monica's Primary School • Land to the south of the Site includes special land use in the form of Hawkesbury showground and racecourse precinct • Environmental conservation - Bakers Lagoon, which occupies approximately 10.8 ha located north of the Site. The projected land use in the Management Area is not anticipated to materially change within the next 5 years.

2.2 Management Area

In August 2019, Defence released the PMAP for the Site, which details the management measures to address soil and water contamination concerns and potential risks resulting from PFAS. The Management Area comprises three distinct areas (refer to **Figure 2** in **Appendix A**):

1. ***On-Site Management Area****:* which includes the Site, inclusive of the Defence owned land to the east of Percival Street (Rickabys Drop Zone)
2. ***Bakers Lagoon Management Area****:* which includes Bakers Lagoon and associated drains/creeks located to the north of the Site
3. ***Off-Site Management Area****:* which includes private properties to the north, west and southeast of the Site.

The Management Areas are also relevant to the OMP, in regard to where ongoing monitoring of PFAS concentrations in either groundwater, surface water or sediment will be undertaken to allow for continued assessment of risks to receptors that may be potentially affected by PFAS.

2.3 PFAS Source Areas and PFAS Impact

The PMAP (Defence, 2019b) identified the following locations as PFAS source areas which have been grouped based on their location and proximity on-Site:

- *Group 1 Source Area*: Former Fire Training Ground (FFTG), Airfield Foam Cannon Testing Area (AFTCA)
- *Group 2 Source Area*: STP
- *Group 3 Source Area*: Hangar 54, Fire Station Building 291
- *Group 4 Source Area*: Fuel Farm 2, Tanker Parking Area (Former Fuel Farm 1), area used by fitters.

Subsequent works undertaken by the PMAP Delivery team since the PMAP's development have further refined the understanding of PFAS Source Areas on the Site. These additional works are listed below and are discussed in **Section 6.0**:

- AECOM (2020a). Short Form Remedial Action Plan, Former Fire Training Ground, RAAF Base Richmond. 10 September 2020

- AECOM (2022f). Remediation Data Gap Assessment Report – Base Wide RAP – PMAP Delivery, RAAF Base Richmond. 13 October 2022
- AECOM (2023b). Base Wide Remedial Action Plan Addendum – Short Form Remedial Action Plan – PMAP Delivery, RAAF Base Richmond. 6 April 2023
- AECOM (2023a). Targeted Groundwater Investigation – PMAP Delivery, RAAF Base Richmond. 3 April 2023.

Based on the outcomes of the PMAP Delivery works the following were confirmed as PFAS Source Areas:

- FFTG
- Area south of the FFTG (Flying Club Taxiway verges)
- Localised PFAS source near MW107I and Foam Test Facility (FTF)
- Fire Station Building

Note that the other Source Areas as listed in the PMAP, including the STP, Hangar 54, Fuel Farm 2 and the Tanker Parking Area / Former Fuel Farm contain critical infrastructure and Defence operations, which restrict access for further investigation and potential management / remediation.

The Source Areas are presented on **Figure F3**, **Appendix A**.

The nature, extent, fate and transport of PFAS within the Management Area, based on the DSI report (AECOM, 2018a), are summarised in **Section 2.3.1** and **Section 2.3.2** below.

2.3.1 Groundwater Impact

The DSI (AECOM, 2018a) identified multiple overlapping PFAS groundwater plumes associated with identified on-Site source areas, resulting in the combined PFAS plume being approximately 2 km long and 5 km wide (across the axis of migration), with majority of the groundwater impacts limited to within the Site boundary. The investigation reported that PFAS concentrations decrease with distance from the Site.

The dominant groundwater flow direction was reported to be generally to the northeast. The multiple on-Site sources have contributed to PFAS presence in groundwater in the Clarendon Formation Aquifer (CFA), which extends into the Lowlands Formation Aquifer (LFA).

An isolated detection of PFAS adjacent to Cooley Creek (approximately 1 km to the north of the Site) has been interpreted as not being connected to the main plume further to the south and may be the result of surface water interacting with groundwater.

2.3.2 Surface Water Impact

All major on-Site drainage systems sampled during the DSI (AECOM, 2018a) were found to contain PFAS, additionally PFAS has been reported in the locations where surface water discharges from the Site (refer to **Figure F3**). These locations include:

- Runoff from catchments north and northwest of the Site, which discharge off-Site into tributaries of Rickabys Creek on the Richmond Lowlands
- Runoff from catchment south and east of the Site, which discharge off-Site into Rickabys Creek
- Treated effluent from the on-Site STP which discharges off-Site to Bakers Lagoon.

Ultimately, all surface water discharged from the Site via major drainage networks and creeks, flows towards the Hawkesbury River. PFAS has been detected in the Hawkesbury River including upstream of the Site (south of the bridge at North Richmond). Note that the DSI (AECOM, 2018) identified multiple potential regional PFAS sources across the broader Hawkesbury catchment, including upstream of the Site.

The PMAP (Defence, 2019b) noted that it is considered likely that flooding from the major drains has and will disperse PFAS to surface soils and potentially to shallow groundwater as water levels fall and infiltration occurs.

3.0 Sampling and Analytical Methodology

3.1 Sampling Methodology

The sampling methodology is presented in the SAQP (AECOM, 2023d).

The SAQP (AECOM, 2023d) outlines the proposed schedule and rationale for sampling, prescribing six-monthly groundwater, surface water and sediment sampling at the Management Areas.

The SAQP provides the list of groundwater monitoring wells, surface water and sediment locations sampled during each sampling event, along with the sampling methodology for each of the media. The current SAQP has been included in **Appendix B.**

A summary of the OMP monitoring events completed in accordance with the SAQP (AECOM, 2023d) between December 2020 and June 2023, is provided in **Table 2**.

Table 2 Summary of Monitoring Events

Monitoring Event (Sampling dates)	Scope as per SAQP	Samples Collected	Analysis
Biannual Sampling – May 2021 Groundwater, Surface Water and Sediment Sampling Event (AECOM, 2021a) (3 – 7 May 2021)	80 GW samples	76 GW samples	PFAS extended suite, inorganics, metals
	22 SW samples	22 SW samples	
	21 SD samples	19 SD samples	
Biannual Sampling – November 2021 Groundwater, Surface Water and Sediment Sampling Event (AECOM, 2022b) (22 – 29 November and 14 December 2021)	92 GW samples	88 GW samples	PFAS extended suite, inorganics, metals
	23 SW samples	22 SW samples	
	22 SD samples	21 SD samples	
Biannual Sampling – May 2022 Groundwater, Surface Water and Sediment Sampling Event (AECOM, 2022f) (24 – 31 May 2022 and 16 June 2022)	90 GW samples	80 GW samples	PFAS extended suite
	23 SW samples	21 SW samples	
	22 SD samples	20 SD samples	
Biannual Sampling – November 2022 Groundwater, Surface Water and Sediment Sampling Event (AECOM, 2023c) (2 – 21 November 2022)	84 GW samples	80 GW samples	PFAS extended suite
	21 SW samples	20 SW samples	
	21 SD samples	20 SD samples	
Biannual Sampling – May 2023 Groundwater, Surface Water and Sediment Sampling Event (AECOM, 2023e) (8-15 May 2022 and 9 June 2023)	83 GW samples	81 GW samples (+ 2 locations re-sampled)	PFAS extended suite
	23 SW samples	21 SW samples (+ 2 locations re-sampled)	
	22 SD samples	20 SD samples	

Notes: SW = surface water; GW = groundwater, SD = sediment

3.2 Deviations from SAQP Requirements

Deviations from the scope outlined in SAQP for the monitoring period are summarised in **Table 3** below.

Table 3 Deviations from SAQP during Biannual Sampling Events – May 2021 to June 2023

SAQP Requirement	Sampling Event Deviation	Impact of deviation on data set
Biannual Sampling Event - May 2021 (AECOM, 2021a)		
Collection of groundwater samples from 78 locations.	Two residential groundwater bores (POT001 and POT002) could not be sampled as they had been decommissioned by the property owner prior to the May 2021 sampling event. These were replaced by alternative locations (denoted as MW120 and MW121) within the same property. Two off-Site monitoring wells (MW006, located in Rickabys Drop Zone and MW099, located along Cupitts Lane) appeared to have sustained damage during the flooding in March 2021 and could not be sampled during the May 2021 monitoring event. The data logger in MW099 could not be located.	AECOM does not consider the lack of sampling from these locations to constitute a significant data gap as the existing monitoring well network provides adequate coverage of these locations. Given that 12 months of continuous water level logger data had previously been collected at well MW099 (up to November 2020), the existing data set was considered sufficient to assess the potential for seasonal variation for the purposes of the OMP.
Collection of groundwater samples using HydraSleeves™ deployed prior to the sampling event.	Sampling at five locations (MW120, MW121, MW033, MW045 and MW074) were completed using alternate sampling methods, which were collected by the use of dedicated, disposable bailers due to the following: • Not practical to deploy HydraSleeves™ in residential groundwater bores at MW120 and MW121. • HydraSleeves™ failed to deploy at MW033, MW045, MW074.	Groundwater PFAS results at these locations were within the historical range, indicating the change in sampling methodology was unlikely to have impacted the reliability or comparability of the data.
At the completion of the sampling event, new HydraSleeves™ are to be deployed ahead of the next scheduled event.	HydraSleeves™ were not replaced in 24 monitoring wells (MW005, MW006, MW007, MW009, MW010, MW020, MW032, MW033, MW041, MW043, MW047, MW050, MW051, MW052, MW053, MW056, MW057, MW058, MW059, MW060, MW061, MW072, MW073 and MW078) following sampling as these locations were due to be sampled by the Defence Estate Maintenance and Operation Services (EMOS) contractor completing the Regional Water Quality Monitoring Program (RWQMP) event before the November 2021 event.	No impact as the new HydraSleeves™ were subsequently installed in these wells prior to the November 2021 OMP sampling event.

SAQP Requirement	Sampling Event Deviation	Impact of deviation on data set
Collection of sediment samples from 21 locations.	Two sediment samples (SD018 and SD023) could not be collected during the May 2021 due to bank instability (safety concern) resulting from the flooding in March 2021.	The lack of data for the May 2021 event is considered to have a minimal impact on the data set, as these locations have historical data and were subsequently accessed, sampled and analysed as part of the November 2021 biannual sampling event.
Collection of surface water samples by lowering a laboratory supplied container into the water with the cap immediately applied once the container is full.	Two surface water samples (SW018 and SW023) could not be collected during the May 2021 due to bank instability (safety concern) resulting from the flooding in March 2021.	The lack of data for the May 2021 event is considered to have a minimal impact on the data set, as these locations have historical data and were subsequently accessed, sampled and analysed as part of the November 2021 biannual sampling event.
Biannual Sampling Event - November 2021 (AECOM, 2022b)		
Collection of groundwater samples from 92 locations.	Seven groundwater locations (MW006, MW099, MW044, MW045, MW117, MW118 and MW119) could not be sampled during the November 2021 event, due to the following: • MW117, MW118 and MW119 appeared to have been compromised by surface water influx, as water level was at ground surface • Monitoring wells MW006 (located in Rickabys Drop Zone) and MW099 (located off-Site along Cupitts Lane) were observed to have been destroyed • Monitoring wells MW044 and MW045 (located on-Site) were located underneath stockpiles of construction material.	AECOM does not consider the lack of sampling from these locations to constitute a significant data gap as the existing monitoring well network provides sufficient coverage of these locations.
Collection of groundwater samples by using HydraSleeves™ deployed prior to the sampling event.	Samples at six locations (MW007, MW009, MW072, MW074, MW120 and MW121) were collected using dedicated disposable bailers as HydraSleeves™ were either not present, did not deploy appropriately or insufficient water was available during the November 2021 event.	As the concentrations of PFAS reported in these samples were either within the historical range for each location, or within the same order of magnitude as historical results, the change in sampling methodology is not considered to impact upon the reliability or comparability of the data for the purposes of the OMP.

SAQP Requirement	Sampling Event Deviation	Impact of deviation on data set
		AECOM successfully sampled wells MW007, MW074, MW120 and MW121 using HydraSleeves™ during the subsequent OMP sampling event in May 2022.
20% of groundwater and surface water samples to be analysed for nutrients (ammonia, nitrate, nitrite, phosphorous) and selected metals (aluminium, bromide, iron and manganese).	Due to a low volume of groundwater being present in location MW009, there was only enough sample for PFAS analysis, which resulted in approximately 17% of samples to be analysed for the expanded suite.	Given that the actual rate was only marginally lower than the target rate of 20%, AECOM considers that the data is sufficient for the purposes of the OMP.
Collection of surface water samples from 23 locations.	Surface water sample location (SW081), north of Bakers Lagoon was not accessible during the November 2021 event as the road was closed due to council road rectification works following the damage sustained during significant flood event in March 2021.	AECOM notes that concentrations of PFAS in surface water at this location remain a data gap as this location has not been sampled previously and as of May 2023 this location remains inaccessible due to subsidence.
Collection of sediment samples from 22 locations.	AECOM was unable to collect a sample from proposed sediment location SD081 (north of Bakers Lagoon) as the road was closed due to council road rectification works following the damage sustained during a significant flood event in March 2021.	AECOM notes that concentrations of PFAS in sediment at this location remain a data gap. This location has not been sampled previously and as of May 2023, this location remains inaccessible due to subsidence.
Collection of surface water samples by lowering a laboratory supplied container into the water with the cap immediately applied once the container is full.	Due to access considerations, the surface water sample from SW037 was collected using a dedicated disposable bailer.	As the concentrations of PFAS reported in this sample were within the historical range for this location, the change in sampling methodology is not considered to impact upon the reliability or comparability of the data for the purposes of the OMP.

SAQP Requirement	Sampling Event Deviation	Impact of deviation on data set
Biannual Sampling Event - May 2022 (AECOM, 2022f)		
Collection of groundwater samples from 90 locations	10 groundwater locations were not sampled during the May 2022 event, due to the following: • MW044 and MW045 could not be located (covered by new turf), alternate location MW046 sampled • MW058 damaged monument, sufficient local coverage, no alternate location required • MW086 buried by stockpile, sufficient local coverage, no alternate location required • MW095 considered destroyed, local wells MW091 and MW092 have been substituted. Replacement wells may be required in this area and are being considered by Defence. • MW117, MW118, MW119 considered compromised and removed from OMP at the direction of Defence (correspondence dated 24 May 2022) • MW120, MW121 private property bores are no longer accessible.	The lack of gauging and sampling data for most locations is not considered to have a significant impact on the dataset, or present a significant data gap, as the existing monitoring well network provides sufficient coverage in this area. Alternative sampling locations would be explored for MW120 and MW121 as this presents as a potential data gap in assessing the off-Site extent of PFAS in groundwater to the north of the Site, however as of May 2023 no suitable replacement locations had been identified.
Collection of surface water samples from 23 locations	Two surface water locations were not sampled during the May 2022 event due to the following: • SW081 could not be accessed due to flood damage to access road • SW032 private property location was no longer accessible.	Absence of sampling data at these locations presents a potential data gap for assessing PFAS concentrations in the Bakers Lagoon area. As of May 2023, no suitable alternative sampling locations have been identified to replace SW081 and SW032.
20% of groundwater and surface water samples for nutrients (ammonia, nitrate, nitrite, phosphorous) and selected metals (aluminium, bromide, iron and manganese)	Only 19% of groundwater and surface water samples were analysed for the expanded suite (MW095 and SW032 were not sampled as per details above).	Given that the actual rate was only marginally lower than the target rate of 20%, AECOM considers that the data is sufficient for the purposes of the OMP.

SAQP Requirement	Sampling Event Deviation	Impact of deviation on data set
Collection of sediment samples from 22 locations.	Two sediment locations were not sampled during the May 2022 event, due to the following: • SD081 could not be accessed due to flood damage to access road • SD032 private property location was no longer accessible.	Lack of sampling data at these locations presents a potential data gap for assessing PFAS concentrations in the Bakers Lagoon area. As of May 2023, no suitable alternative sampling locations have been identified to replace SD081 and SD032.
Collection of gauging and geochemical parameter data at each groundwater location	Due to the opportunistic nature of the groundwater sampling undertaken on 16 June 2022, no gauging or geochemical parameter data was collected during the sampling of monitoring well MW080.	The lack of gauging and geochemical data for location MW080 is not considered to impact upon the objectives of the OMP.
Biannual Sampling Event - November 2022 (AECOM, 2023c)		
Collection of samples, and associated gauging data and field parameters, from 84 groundwater locations.	Four groundwater monitoring locations were not sampled during the November 2022 event, due to the following: • MW044 could not be located and is considered likely to have been destroyed during recent construction works in 2021/2022. Sufficient coverage in the area provided by MW045 and MW046 • MW086 buried by stockpile, sufficient local coverage, no alternate location required • MW097 and MW098 could not be located and are considered likely to have been destroyed during recent floods.	The lack of gauging and sampling data for MW097 and MW098 presents a data gap in the off-Site coverage of the down-hydraulic extent of the identified PFAS groundwater plume. AECOM subsequently installed two wells to replace MW097 (new well MW143) and MW098 (new well MW144) in April 2023, which were sampled during the May 2023 sampling event to address this data gap.
Collection of samples, and associated field parameters, from 22 surface water locations.	Two surface water monitoring locations were not sampled during the November 2022 event, due to the following: • SW001 was dry and could not be sampled. The location was visited on three separate occasions over the course of the sampling event, and the location was confirmed dry each time • SW081 was inaccessible, due to the road closure and rectification works.	The lack of sampling data for SW001 is not considered to have a significant impact on the data or present a significant data gap, given that the location is an ephemeral drainage line and is not expected to have water present at all times. The lack of sampling data for SW081 continues to present a data gap in the understanding of PFAS migration from Bakers Lagoon to the Hawkesbury River. As

SAQP Requirement	Sampling Event Deviation	Impact of deviation on data set
		of May 2023, no suitable alternative sampling locations have been identified to replace SW081.
Collection of sediment samples from 21 locations.	Sediment location SD081 was inaccessible, due to the road closure and rectification works associated with a recent landslip and could not be sampled during this sampling event.	The lack of sampling data for SD081 continues to present a data gap in the understanding of PFAS migration from Bakers Lagoon to the Hawkesbury River. As of May 2023, no suitable alternative sampling locations have been identified to replace SD081.
Samples from monitoring wells MW001, MW009, MW010, MW022, MW075, MW081, MW082, MW091, MW097 and MW098 are to be analysed for additional analytes including nutrients (ammonia, nitrate, nitrite, phosphorous), selected metals (aluminium, bromine, iron and manganese) and anions/cations.	The additional analytes were not analysed for 3 of the 10 scheduled groundwater monitoring locations. The additional analytes were inadvertently not scheduled for the sample collected from monitoring well MW082, due to field error, and was not able to be scheduled for monitoring wells MW097 and MW098, as these locations could not be sampled during this sampling event.	The lack of additional analytes tested at select locations is not considered to have a significant impact on the data set, or present a significant data gap, given that sufficient non-PFAS data was collected during the initial OMP implementation period (a three-year period). The original objective for conducting the additional analysis was to identify potential correlation between PFAS and non-PFAS concentrations, in order to identify any significant off-Site contributions to PFAS concentrations from agriculture or heavy industries. No correlation was found based on the data collected to date. As such, the requirement to collect and analyse non-PFAS analytes was re-assessed in conjunction with Defence's current Lead Consultant (AECOM). This requirement was determined to no longer be necessary and therefore analysis of non-PFAS analytes was removed from the OMP

SAQP Requirement	Sampling Event Deviation	Impact of deviation on data set
		scope of works ahead of the May 2023 sampling event.
Biannual Sampling Event - May 2023 (AECOM, 2023e)		
83 groundwater monitoring locations are required to be sampled, gauged and water quality field parameters collected during each monitoring event.	Groundwater samples and associated gauging data and water quality field parameters, were not collected from 2 of the 83 scheduled groundwater sampling locations due to the following reasons. Groundwater monitoring well MW027 could not be located and could not be gauged and sampled during this event. The well could not be located despite the use of a metal detector which is considered likely to have been destroyed or covered over by the construction works in the area. Groundwater monitoring well MW086 was covered by a soil stockpile from recent road rectification works along Percival Street and could not be gauged and sampled during this event.	The lack of gauging and sampling data for MW027 is not considered to have a significant impact on the data set, or present a significant data gap, as other nearby monitoring wells (MW14, MW15 and MW034 located down hydraulic gradient of MW027) were able to be gauged and sampled during this event. The lack of gauging and sampling data for MW086 is not considered to have a significant impact on the data set, or present a significant data gap, as other monitoring wells (MW048, MW001, MW114, MW091 and MW092) in the general vicinity of MW086 were able to be gauged and sampled during this event. These wells are considered to provide sufficient coverage of this area.
Collection of samples from one round of sampling per event.	Groundwater monitoring wells MW143 and MW144 are newly installed wells that were added to the scope ahead of the May 2023 sampling event to replace lost wells MW097 and MW098, respectively, along the road verge of Cupitts Lane. The locations were sampled and initial PFAS concentrations were reported to be outside of the historical ranges previously reported for MW097 and MW098. The original samples were reanalysed, and PFAS concentrations were confirmed. Given these locations are key to understanding PFAS distribution to the north, the wells were re-sampled on 9 June 2023 to confirm the original results after the completion of the May 2023 sampling event.	The additional sampling data for MW143 and MW144 provides confirmation of the original results and confidence in the reported concentrations. The update to the data set and changes to the understanding of the Conceptual Site Model have been included in this IR.

SAQP Requirement	Sampling Event Deviation	Impact of deviation on data set
Collection of samples, as well as associated water quality field parameters, from 23 surface water locations.	Surface water location SW081 was inaccessible, due to the road closure and rectification works associated with a landslip and could not be sampled during this sampling event. Surface water location SW085 was added to the scope ahead of the May 2023 sampling event to target Bakers Lagoon and requires access from a private property near the waterbody. The proposed location was observed to be dry and not representative of Bakers Lagoon waterbody during this sampling event, and therefore not sampled. AECOM considers that the new location accessed (SW085) appeared to be dry during prolonged dry periods and therefore there is no connectivity with Bakers Lagoon during these dry periods.	The lack of sampling data for SW081 targeting Bakers Lagoon and SW085 continues to present a data gap in the understanding of PFAS migration from Bakers Lagoon to the Hawkesbury River. AECOM considers that the new location accessed (SW085) was not representative of Bakers Lagoon during this sampling event given that during dry periods there appears to be no connectivity with Bakers Lagoon. SW085 will be sampled during future sampling events if there is significant rain for the waterbody to be connected with Bakers Lagoon.
Collection of samples from one round of sampling per event.	Surface water locations SW015 and SW016 are located in the vicinity of the nearby newly installed groundwater monitoring wells (MW143 and MW144), along the road verge of Cupitts Lane. The locations were re-sampled together alongside MW143 and MW144 on 9 June 2023, following receipt of initial sampling results for these locations sampled during the May 2023 sampling event. Note that these surface water locations provide data to assess whether there is inter-connectivity between surface water and groundwater in this area by assessing the correlation in PFAS concentrations in surface water and groundwater.	The additional sampling data for SW015 and SW016 provides the data to enable comparison of surface water and groundwater in this area, and whether the concentrations in groundwater may be attributed to surface water transport and infiltration during flood events.

SAQP Requirement	Sampling Event Deviation	Impact of deviation on data set
Collection of sediment samples, as well as associated field data from 22 locations.	Sediment sampling location, SD081 was inaccessible, due to the road closure and rectification works associated with a recent landslip and could not be sampled during this sampling event. Note that sediment sample location SD085 was added to the scope ahead of the May 2023 is sampling event to target Bakers Lagoon and requires access from a private property near the waterbody. The proposed location was observed to be dry and not sampled. AECOM observed that surface water and sediment locations (SW085 / SD085) were dry during prolonged dry periods and therefore there is no connectivity between the sample location and Bakers Lagoon, during these dry periods. As such, surface water and sediment sampling were not undertaken.	The lack of sampling data for SD081 and SD085 continues to present a data gap in the understanding of PFAS migration from Bakers Lagoon to the Hawkesbury River. At the time new location SD085 was visited, there appeared to be no connectivity between this location and Bakers Lagoon. AECOM will attempt to re-visit the new location, SD085, and attempt to collect a sample during future sampling events if there is significant rain for the waterbody to be connected with Bakers Lagoon.

4.0 Quality Assurance and Quality Control

Data validation pertaining to the data in this report has been previously completed and discussed within the individual factual reports listed in **Section 1.2**.

Data validation procedures employed in the assessment of the field and laboratory Quality Assurance and Quality Control (QA/QC) data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of the factual and interpretive reports.

5.0 Assessment Criteria

Adopted screening criteria references national guidance in the form of PFAS National Environmental Management Plan (NEMP) (Heads of Environment Protection Authority Australia and New Zealand [HEPA], 2000), Defence estate and environmental strategies, and Defence PFAS-specific strategies and guidance. At the time of preparing this report, a number of guidance documents were available in Australia and referred to including:

- HEPA, 2020. PFAS NEMP Version 2.0. January 2020
- Department of Health (DoH), April 2017. Health Based Guidance Values for PFAS for use in site investigations in Australia. This document is based on the works undertaken by FSANZ in 2017 (FSANZ 2017)
- National Health and Medical Research Council (NHMRC), 2019. Guidance on Per and Polyfluoroalkyl Substances (PFAS) in Recreational Water. August 2019 (NHMRC 2019)
- National Environment Protection Council (NEPC), 1999. National Environment Protection (Assessment of Site Contamination) Measure (ASC NEPM) Schedule B1 (As amended in 2013).

The adopted PFAS screening criteria to assess the surface water and groundwater analytical results are presented in **Table 4** (applicable to the assessment of human health) and **Table 5** (applicable to the assessment of ecological receptors).

Table 4 PFAS Criteria: Human Health

Pathway	Compound	Criteria	Comment / Reference
Drinking water – groundwater	PFOS+PFHxS	0.07 µg/L	The values presented in the PFAS NEMP, 2020 are from DoH 2017, which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH summarise the Tolerable Daily Intake (TDI) for Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanoic acid (PFOA) from Food Standards Australia New Zealand (FSANZ, 2017) and the methodology described in Chapter 6.3.3 of the National Health and Medical Research Council's (NHMRC) Australian Drinking Water Guidelines (ADWG), 2016 to determine drinking water values. For Perfluorohexanesulfonic acid (PFHxS), DoH 2017 noted that '*FSANZ concluded that there was not enough toxicological and epidemiological information to justify establishing a tolerable daily intake. However, as a precaution, and for the purposes of site investigations, the PFOS tolerable daily intake should apply to PFHxS. In practice, this means that the level of PFHxS exposure should be added to the level of PFOS exposure; and this combined level be compared to the tolerable daily intake for PFOS*'. *All groundwater samples were screened against these criteria.*
	PFOA	0.56 µg/L	

Pathway	Compound	Criteria	Comment / Reference
Recreational use – surface water	PFOS+PFHxS	2 µg/L	The previous values presented in the PFAS NEMP Version 1.0, HEPA 2018 were from DoH 2017, which published final health-based guidance values for PFAS for use in site investigations in Australia. However, in 2019 the NHMRC's water quality advisory recommended an alternative methodology to calculate recreational guideline value. Instead of basing it on an ingestion rate of 0.2 L of water per day (as per the *Australian Drinking Water Guidelines* [ADWG] formula), NHMRC (2019) adjusted this rate with consideration of an event frequency (150 events / year) to calculate an annual ingestion rate of 30 L per year. These NHMRC (2019) values have since been adopted under Version 2.0 of the PFAS NEMP (HEPA, 2020). *All surface water samples were screened against these criteria.*
	PFOA	10 µg/L	

Table 5 PFAS Criteria Summary: Ecological

Media	Chemical	Criteria	Comment/Reference
Water (Freshwater) – surface water and groundwater	PFOS	0.00023 µg/L	The values are from the PFAS NEMP Version 2.0 (HEPA, 2020) which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality – draft default guideline values. AECOM understands that these guidelines are currently being reviewed and will consider the appropriateness of considering any future revision. The 99% level of protection has been applied for slightly to moderately disturbed ecosystems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. It is proposed that the laboratory limit of reporting (LOR) is adopted for the purposes of preliminary screening of analytical water results, rather than sole use of the criteria value. *All groundwater and surface water samples were screened against these criteria. Assessment of these criteria against groundwater results are relevant at the point of discharge.*
	PFOA	19 µg/L	

It is noted that at the time this report was prepared no HEPA (2020) endorsed criteria was available for PFAS in sediments.

It is noted that for the purpose of presenting data within this report, AECOM has focussed on PFOA, PFOS and PFOS+PFHxS i.e., those PFAS for which there is either human health and/or ecological assessment criteria.

6.0 Contextual and Ancillary Information

6.1 PFAS Projects

In addition to the reported works completed under the PFAS OMP (**Section 1.2**), the following activities in relation to PFAS are being completed at the Site.

6.1.1 PFAS Mass Flux Study

A mass flux study was undertaken between May 2020 and January 2021 to estimate the PFAS mass discharge over the Site boundary in groundwater and surface water. The outcomes of this study, including annual PFAS discharge estimates from the Site, were reported in PFAS Mass Flux Report (AECOM, 2021c). The scope of the study included the following:

- Installation of 10 new groundwater monitoring wells to enable flux monitoring across three transects on the Site, followed by two rounds of groundwater monitoring at these locations
- Installation of V-notch weirs and water level sensors at two surface water locations (SW002 and SW009) considered as the terminal point of the two major surface water catchments on-Site, followed by three rounds of baseline (baseflow) sampling and three rounds of event flow (rainfall event) sampling.

Two rounds of groundwater monitoring were performed across the three-groundwater flux transects, whilst four rounds of baseline (baseflow) surface water sampling and five rounds of event flow (rainfall event) surface water sampling were undertaken. Additionally, hydrogeological characteristics were analysed via groundwater slug testing and laboratory analysis for aquifer particle size distribution (PSD).

Following field and analytical testing, the annual site wide PFOS+PFHxS mass discharge was estimated to be 75 grams per year for groundwater and 2,576 grams per year for surface water. This confirmed that surface water flux was the major contributor of off-Site PFAS mass flux, accounting for approximately 97% of the annual site-wide mass discharge.

Based on the results of investigations to date, it is inferred that PFAS discharge off-Site via surface water increases in response to rainfall. This is based on:

- on average the Site receives rainfall greater than 1 mm for 73 days per year, and that the 73 days of rain is likely to account for around 50% of the total PFAS discharge from the Site to the receiving environment
- At SW002 rainfall events account for 53.8% of the annual PFAS discharge in comparison to baseflow conditions
- At SW009 rainfall events account for 46.2% of the annual PFAS discharge comparison to baseflow conditions.

Based on these findings, future on-Site remediation / management activities would be prioritised to reduce the PFAS mass flux to surface water.

6.1.2 Short Form RAP - Former Fire Training Ground

A Short Form Remedial Action Plan (RAP) (AECOM, 2020a) was developed to undertake the remediation of the FFTG, which was identified as being the likely dominant source of PFAS contamination (AECOM, 2018a). The Short Form RAP included site-specific remediation end points with the end goal of achieving an order of magnitude reduction in PFAS mass discharge to the environment.

The selected remedial option in the RAP was to:

a. excavate low PFAS impacted soils (PFOS+PFHxS concentrations <15 mg/kg), stabilise the excavated soils with powdered activated carbon (PAC) and reinstate the stabilised soils; and

b. undertake off-Site thermal destruction of high PFAS impacted soils (PFOS+PFHxS concentrations >15 mg/kg).

The RAP implementation is discussed in **Section 6.1.3**.

6.1.3 Soil Remediation - Former Fire Training Ground

The Short Form RAP was implemented by AECOM between March 2021 and July 2021, with the excavation of approximately 4,000 m^3 of soil from the FFTG.

The soil with high concentrations of PFAS (i.e. PFOS+PFHxS concentrations >15 mg/kg), equating to approximately 1,417 tonnes was thermally destroyed at a licensed facility in Victoria. The remaining soil was stabilised with PAC and then backfilled into its original excavation.

The results of post-remediation testing confirmed a greater than 99% reduction in PFAS surface water runoff from the FFTG and an estimated 136 kg of PFAS was managed during the works.

Defence will continue to monitor surface water and groundwater at the FFTG via the bi-annual monitoring program managed under the OMP to assess the long-term effectiveness of the remediation works.

6.1.4 Targeted Groundwater Investigation

A Targeted Groundwater Investigation (AECOM, 2023b) was undertaken following significant increases in PFAS concentrations in MW107I, located on the northern Site boundary, to assess the potential source and its implication on the CSM. This increase in PFAS concentration was not consistent with the existing CSM, as it was currently understood that surface water was the primary migration pathway of PFAS discharge from the Site into off-Site areas.

The scope included a targeted investigation to identify:

- If there was a potential new PFAS source at the northern Site boundary
- The magnitude of PFAS impacts at the northern Site boundary adjacent MW107I
- Necessary updates to the PFAS mass flux / discharge estimates across the northern Site boundary
- If the Site CSM required updating.

The investigation also considered data collected through to December 2022.

The Targeted Groundwater Investigation (AECOM, 2023b) concluded:

- Elevated PFAS impacts detected in MW107I in 2022 were inferred to be a response to increased vertical migration of PFAS from a local soil source mobilised by elevated rainfall over the preceding 12 months and increased head and groundwater elevation within the Clarendon Formation Aquifer (CFA)
- Elevated PFAS impacts in groundwater are present on the northern Site boundary, in a shallow aquitard and at MW124I. However, the aquitard does not appear to have a significant contribution to PFAS mass discharge off-Site
- Estimations of PFAS mass discharge via groundwater over the northern boundary have increased compared to historical estimates. However, surface water is still the largest contributor to PFAS mass discharge off-Site, contributing approximately nine times the mass discharge of groundwater (508 g/year via groundwater compared to 3,667 g/year via surface water)
- Local sources of PFAS contamination in soil are inferred to be present near MW107I and the northern boundary of the Site, including at the FTF.

Based on these conclusions, the following recommendations were made:

- Further monitoring of groundwater wells on the northern boundary be undertaken to monitor for fluctuations in PFAS concentrations and discharge over the northern boundary, especially in response to rainfall

- While the overall contribution to the PFAS mass discharge from groundwater at the northern boundary is minimal in the overall context of the Site, and So Far As Reasonably Practical (SFARP) principles, consideration could be given to localised remediation actions. This may be required given the presence of elevated PFAS impacts on the Site boundary and because of the response of PFAS impacts in MW107I to rainfall and groundwater elevation. There remains the potential for PFAS mass discharge on the northern boundary to increase in response to these environmental factors.

6.1.5 Base Wide RAP

AECOM completed Source Area characterisation works for the remaining potential PFAS Source Areas at the Site in 2022, as identified in the PMAP (Defence, 2019b). This is reported in remediation Data Gap Assessment report (AECOM, 2022e). The characterisation works were undertaken to further refine the spatial extent of soil impacts to support whether remediation is warranted in Source Areas under Defence's objectives of remediation to So Far As Reasonably Practical (SFARP) principles, and for inclusion in the Base Wide RAP (being prepared at the time of the characterisation works).

The works comprised sampling soil, asphalt and surface water for PFAS analysis, and leachability testing of PFAS from soil.

Based on the outcomes of the characterisation works, the following source areas were recommended for inclusion in the Base Wide RAP:

- Source Area 1 – AFCTA: An estimated 282 m3 of PFAS impacted soils containing 2.92 kg of PFOS+PFHxS is present beneath the asphalt. PFAS in the asphalt were also elevated
- Source Area 2 – Area South of the FFTG: An estimated 6,973 m3 of PFAS impacted soils containing 162.7 kg of PFOS+PFHxS is present, and soils in this area have been demonstrated to readily leach
- Source Area 3 – Fire Station Building: An estimated 1,075 m3 of PFAS impacted soils containing 18.1 kg of PFOS+PFHxS, and soils in this area have been demonstrated to readily leach.

The following two Source Areas were not identified as PFAS Source Areas and are not included in future remediation works:

- Source Area 4 – Area used by Fitters. The PFAS impacts appeared to be isolated and showed a low leachable potential. Source Area 5 – Settlement Ponds on Rickabys Drop Zone. The results from the surface water samples collected from inflow and outflow of the settlement ponds did not indicate that they are a secondary source of PFAS impacts to Rickabys Creek.

Additionally, given the outcomes of the Targeted Groundwater Investigation (refer **Section 6.1.4**) PFAS impacts identified on the northern Site boundary in the area of MW107I and the FTF have been included for remediation in the Base Wide RAP.

Other potential source areas identified in the PMAP (including Hangar 54, Fuel Farm 2 and the Tanker Parking Area / Former Fuel Farm), contain critical infrastructure and Defence operations which restrict access for remediation. Remediation at these potential source areas will need to be undertaken opportunistically and will likely be incorporated into Site redevelopment if or when it occurs. In the meantime monitoring under the OMP will continue until redevelopment occurs.

6.2 Infrastructure Projects

The site EMOS contractor informed AECOM that the following infrastructure projects may overlap with known locations of PFAS impacts:

- Base Redevelopment - scheduled for planning commencement 2024
- National Airfield Works Project (P0010) – Schedule for commencement in 2024.

These projects did not fall within the monitoring / reporting period.

6.3 Significant Weather Events

During the monitoring period, the Hawkesbury region experienced a number of significant climatic events, including four significant rain events.

The following records have been obtained from the BoM monitoring station located at RAAF Richmond (067105) via http://www.bom.gov.au/climate/data/:

- The annual total rainfall of 1498 mm for 2022 was higher than the mean annual rainfall of 768.1 mm for this station between 1993 and June 2023
- A significant rain event of 348 mm occurred between 12 and 25 March 2021 that resulted in flooding to the Richmond lowlands and Rickabys Drop Zone
- During November 2021, two significant rain events occurred:
  - 148.6 mm between 4 and 13 November 2021
  - 106 mm between 21 and 28 November 2021.

It is noted that the November 2021 monthly total was the highest for the period between 1994 and 2021.

- During March 2022, two significant rain events occurred that resulted in flooding to the Richmond area:
  - 431.6 mm between 1 and 9 March 2022
  - 136.2 mm between 25 and 31 March 2022.

The monthly total rainfall for March 2022 was 591.2 mm.

Recorded rainfall during the monitoring period totalled 3,033 mm.

The summary of the rainfall recorded over the monitoring period for the weather station at RAAF Richmond (Station ID 067105), and the occurrences of wet weather events (days with rainfall > 15 mm) are provided in **Table 6.** The graph showing monthly rainfall is presented on Graph G1 in **Appendix D**.

Table 6 Rainfall during monitoring period (December 2020 – June 2023)

Sampling Event	Rainfall over the monitoring period from weather station 067105 (BoM, 2021)	Wet weather events during the monitoring period (days with rainfall > 15 mm)
3 to 7 May 2021	• 0.2 mm (3 May 2021) • 0.6 mm (4 May 2021) • 5.6 mm (5 May 2021) • 14.0 mm (6 May 2021) • 29.2 mm (7 May 2021)	• 21.0 mm (22 December 2020) • 23.4 mm (29 December 2020) • 15.0 mm (30 December 2020) • 34.6 mm (2 February 2021) • 18.2 mm (13 February 2021) • 20.4 mm (14 February 2021) • 18.4 mm (14 March 2021) • 65.8 mm (19 March 2021) • 49.4 mm (20 March 2021) • 64.8 mm (21 March 2021) • 66.8 mm (22 March 2021) • 41.0 mm (23 March 2021) • 19.6 mm (8 April 2021) • 29.2 mm (7 May 2021) • 27.2 mm (24 August 2021) • 19.6 mm (25 August 2021) • 19.0 mm (5 November 2021) • 20.6 mm (6 November 2021) • 37.2 mm (8 November 2021) • 23.2 mm (9 November 2021)
22 to 29 November and 14 December 2021	• 23.0 mm (22 November 2021) • 1.6 mm (23 November 2021) • 2.4 mm (24 November 2021) • 6.0 mm (25 November 2021) • 49.4 mm (26 November 2021)	
24 to 31 May and 16 June 2022	• 0.6 mm (24 May 2022) • 0.4 mm (25 May 2022) • 0.2 mm (26 May 2022) • 0.2 mm (28 May 2022) • 0.6 mm (29 May 2022) • 0.2 mm (30 May 2022) • 2.4 mm (31 May 2022)	

Sampling Event	Rainfall over the monitoring period from weather station 067105 (BoM, 2021)	Wet weather events during the monitoring period (days with rainfall > 15 mm)
2 to 25 November and 7 December 2022	• 0.4 mm (4 November 2022) • 0.2 mm (12 November 2022) • 29.0 mm (14 November 2022) • 0.2 mm (15 November 2022) • 0.4 mm (17 November 2022) • 0.1 mm (20 November 2022)	• 20.2 mm (11 November 2021) • 26.8 mm (12 November 2021) • 23.0 mm (22 November 2021) • 49.4 mm (26 November 2021) • 15.8 mm (27 November 2021) • 22.6 mm (6 January 2022) • 26.4 mm (8 January 2022) • 23.2 mm (13 January 2022) • 26.2 mm (19 January 2022) • 17.6 mm (23 February 2022) • 39.8 mm (2 March 2022) • 126.4 mm (3 March 2022) • 25.8 mm (4 March 2022) • 116.4 mm (6 March 2022) • 44.2 mm (7 March 2022) • 40.2 mm (8 March 2022) • 28.8 mm (9 March 2022) • 16.4 mm (19 March 2022) • 17.0 mm (28 March 2022) • 82.2 mm (29 March 2022) • 21.8 mm (7 April 2022) • 31.6 mm (8 April 2022) • 53.4 mm (3 July 2022) • 18.6 mm (4 July 2022) • 88.8 mm (5 July 2022) • 31.0 mm (16 September 2022) • 15.2 mm (28 September 2022) • 23.2 mm (6 October 2022) • 41.4 mm (9 October 2022) • 29.0 mm (14 November 2022) • 14.6 mm (5 January 2023) • 18.4 mm (19 January 2023) • 19.2 mm (30 January 2023) • 32.3 mm (31 January 2023) • 17.0 mm (10 February 2023) • 50.2 mm (22 February 2023) • 41.0 mm (30 April 2023)
8 to 15 May and 9 June 2023	• 0.3 mm (8 May 2023) • 0.7 mm (14 May 2023) • 0.2 mm (15 May 2023) • 0.4 mm (8 May 2023)	

Several wet weather events occurred in the monitoring period (December 2020 to June 2023) including significant falls recorded in March 2021, November 2021, and March 2022. The significant rainfall (double the annual average) and flooding experienced during this monitoring period compared to the monitoring undertaken prior to March 2021, has the potential to impact upon the interpretation of the data, as noted below:

- It is probable that during periods of increased frequency and intensity of rainfall (refer **Table 6** for days where >15 mm of rainfall occurred), PFAS impacted surface soils on-Site becomes saturated for extended periods of time. As a consequence, this leads to greater overland flow into the drains and likely to increase the migration kinetics between solid to liquid partitioning due to the following:
  - a decrease in the air-water interfacial adsorption
  - an increase of the liquid to solid ratio
  - reduced tortuosity impact.

- While surface water concentrations may have become diluted in response to increased rainfall and volume of water within the catchment, the PFAS mass discharged off-Site may have increased due to the mobilisation of PFAS impacts in surface soils and sediments at known Source Areas (refer **Section 6.1.1**) given the mechanisms described above. Note that the dissolved PFAS, while dilute, may discharge in greater quantities due to higher flows.
- The increased rainfall will likely have increased surface water infiltration into the underlying CFA, which in the short-term would have likely decreased concentrations of PFAS in groundwater due to dilution. However, following this short-term response to dilution, concentrations of PFAS in groundwater may increase due to the increased surface water infiltration mobilising PFAS impacts present in impacted soils on-Site in known Source Areas. Particularly in known aquitards present on-Site This response has been observed to occur on-Site as part of the Targeted Groundwater Investigation (refer **Section 6.1.4**)
- The significant flooding that took place in the Richmond lowlands has altered surface water features in this area, including the physical extent of Bakers Lagoon, which now discharges directly to the Hawkesbury River via an unnamed drainage channel to the north. It is not understood whether Bakers Lagoon is receiving surface water flows directly from the Site following the damages (including significant erosion) caused by flooding.

7.0 Monitoring Data Summary

As part of the OMP, as detailed in **Section 1.2** the following five scheduled biannual monitoring events were completed by AECOM over the monitoring period (31 months):

- 3 to 7 May 2021 (May 2021, AECOM, 2021a)
- 22 to 29 November 2021 and 14 December 2021 (November 2021, AECOM, 2022b)
- 24 to 31 May 2022 and 16 June 2022 (May 2022, AECOM, 2022f)
- 2 to 25 November 2022 and 7 December 2022 (November 2022, AECOM, 2023c)
- 8 to 15 May 2023 and 9 June 2023 (May 2023, AECOM, 2023e).

The sample locations are shown on **Figure F4** (**Appendix A**). Results are summarised in following sections and on **Figures F5A** to **F19B** (**Appendix A**). Groundwater elevations shown on **Figures F20** to **F24** (May 2021, November 21, May 2022, November 2022 and May 2023) and interpreted extent of groundwater impact (PFOS+PFHxS) on **Figure F25** (**Appendix A**).

The monitoring and analytical results are provided in **Tables T1** to **T6** in **Appendix C**.

In addition to the OMP data, AECOM also considered the historical data for the Site and Management Areas that are available in the Defence database. **Appendix C**.

7.1 Groundwater Results

7.1.1 Groundwater Field Observations

The field observations during groundwater sampling, including groundwater elevation and parameters, are provided in Table T1 in **Appendix C**.

May 2021

- Groundwater was observed to be clear to brown. Groundwater at three wells were observed to have black suspended solids (MW016, MW080 and MW120). Turbidity ranged from low to high (high turbidity at MW012, MW022, MW026, MW063, MW070, MW071, MW075 and MW097). Other observations of note include:
- Slight hydrogen sulphide odour at MW040 and MW053 and hydrogen sulphide odour at MW043 and MW051
- Sediment in HydraSleeves™ at MW012 and MW076 in May 2021
- Organic suspended solids at MW051 in May 2021.

November 2021

Groundwater was observed to be clear to brown, pale red (MW107D) and dark red (MW008) with generally low to medium turbidity. Other observations of note include:

- Weak hydrocarbon odour noted at MW065
- Weak hydrogen sulphide odour noted at MW121
- Weak to strong organic odours noted at MW021, MW040, MW050 and MW109.

May 2022

Groundwater was observed to be clear to brown. Turbidity ranged from low to high (high turbidity at MW021, MW051, MW097, MW109). Other observations of note include:

- Hydrogen sulphide odour at MW053
- Organic odours at MW008, MW024, MW066, MW072, MW108
- Sediment in base of wells recorded at 25 locations.

November 2022

Groundwater was observed to be clear to brown / orange (MW050) with medium turbidity. Other observations of note include:

Hydrocarbon odour noted at MW064, no sheen

- Sulphurous odour noted at MW040
- Organic odours noted at MW050
- Suspended solids (light brown to brown/orange) present in five locations (MW043, MW050, MW073, MW079, MW081).

May 2023

Groundwater was observed to be clear to light brown, with turbidity ranging from none, low and medium (MW012, MW075, MW143). Other observations of note include:

- No odours, sheen, or suspended solids were observed during this monitoring round.

7.1.2 Groundwater Elevations

The standing water level (SWL) was measured in all the wells to evaluate the groundwater elevations (to m AHD) prior to sampling. Groundwater elevation (GWE) ranges for perched and alluvial groundwater locations from the monitoring events conducted between May 2021 and May 2023 are summarised in **Table 7** (perched) and **Table 8** (alluvial) . It is noted that discontinuous perched groundwater was only observed in MW070 and MW071, located in the central portion of the Site, and it is considered likely to be associated with localised surface water infiltration rather than perched from a geological layer.

Note that due to the increased rainfall received, higher standing water levels were observed, including at the ground surface during sampling events within the Richmond lowlands.

Table 7 Summary of groundwater elevations – perched

Sampling Event	No. Wells	Min. SWL (m btoc)	Max. SWL (m btoc)	Min. GWE (m AHD)	Max. GWE (m AHD)
On-Site Management Area					
May 2021	2	3.730 (MW071)	4.045 (MW070)	15.355 (MW070)	15.420 (MW071)
November 2021	2	3.673 (MW071)	4.107 (MW070)	15.293 (MW070)	15.477 (MW071)
May 2022	2	2.882 (MW071)	3.301 (MW070)	16.099 (MW070)	16.268 (MW071)
November 2022	2	3.210 (MW071)	3.599 (MW070)	15.801 (MW070)	15.940 (MW071)
May 2023	2	3.701 (MW071)	4.074 (MW070)	15.326 (MW070)	15.449 (MW071)

Note: SWL = standing water level, m btoc = metres below top of casing and GWE = Groundwater elevation

Table 8 Summary of groundwater elevations – alluvial

Sampling Event	No. Wells	Min. SWL (m btoc)	Max. SWL (m btoc)	Min. GWE (m AHD)	Max. GWE (m AHD)
On-Site Management Area					
May 2021	59	0.110 (MW012)	17.355 (MW054)	-1.365 (MW072)	10.888 (MW043)
November 2021	70	0.123 (MW013)	17.676 (MW054)	-1.551 (MW072)	18.735 (MW119)
May 2022	65	0.020 (MW013)	16.501 (MW054)	0.090 (MW072)	9.494 (MW010)
November 2022	67	0.027 (MW012)	16.652 (MW054)	-0.054 (MW072)	9.760 (MW010)
May 2023	66	0.512 (MW013)	17.252 (MW054)	-1.106 (MW072)	9.323 (MW107D)
Off-Site Management Area, and areas outside the Management Area					
May 2021	15	0.555 (MW098)	14.872 (MW080)	4.228 (MW092)	9.218 (MW075)
November 2021	14	0.000 (MW081)	15.050 (MW080)	3.080 (MW092)	9.261 (MW075)
May 2022	12	0.000 (MW081)	13.486 (MW106)	4.560 (MW092)	10.432 (MW075)
November 2022	11	0.000 (MW081)	13.774 (MW080)	4.455 (MW092)	10.667 (MW075)
May 2023	15	0.264 (MW081)	14.380 (MW080)	2.882 (MW092)	10.573 (MW075)

Note: SWL = Standing Water level, GWE = Groundwater Elevation, m AHD = metres Australian Height datum, m btoc = metres below top of casing, Min = Minimum, Max = Maximum

Groundwater elevations in the perched groundwater were generally the same throughout the monitoring period. Groundwater elevations within alluvial aquifers, particularly within the on-Site Management Area were highest during the November 2021 biannual event. There were a number of locations where new maximum SWLs were reported, remaining locations were within historical ranges.

Groundwater depths in 2019 and 2020 and in some cases in July 2017 (DSI, AECOM 2018a) were reported to be lower than most events during the current monitoring period, which can be attributed to the historically drier conditions observed on the Site during the collection of the historic gauging data, in comparison to higher rainfall conditions observed since February 2020.

7.1.3 Groundwater Flow Direction

Based on the SWL and survey data, the interpreted groundwater level contours for groundwater within the alluvial aquifer for each of the five biannual events completed during the monitoring period are presented in **Figure F20** (May 2021) to **Figure F24** (May 2023) in **Appendix A**.

Any exclusions to the contours are noted on the figures, the majority of which were associated with the removal of gauging data from monitoring wells screened across the perched water zone. This is to ensure the representativeness of the regional (alluvial) groundwater flow conditions. These exclusions and refinements were made due to gaps in data for the specific locations but overall, due to the broader data set, are not expected to impact the inferred groundwater flow outputs.

The data from the monitoring period indicates that groundwater on the Site, forming part of the Clarendon Formation Aquifer (CFA) and Lowlands Formation Aquifer (LFA) generally present an inferred flow to the north, then east towards tributaries of Rickabys Creek, Bakers Lagoon and Hawkesbury River. The flow directions are generally consistent with those measured in the DSI (AECOM, 2018a) and the 2020 AIR (AECOM, 2021d).

7.1.4 Groundwater Quality Parameters

Groundwater quality parameters were measured prior to collecting groundwater samples and are presented in **Table T1** in **Appendix C** and summarised below in **Table 9** (perched) and **Table 10** (alluvial).

Table 9 Summary of groundwater quality parameters – perched

Sampling Event	Number of samples	Dissolved Oxygen (mg/L)		Electrical Conductivity (µS/cm)		pH		Correct redox (mV)		Temperature	
	Count	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
On-Site Management Area											
May 2021	2	4.20 (MW070)	5.71 (MW071)	126.9 (MW071)	195.6 (MW070)	6.30 (MW071)	6.45 (MW070)	265.8 (MW070)	285.7 (MW071)	20.6 (MW070)	21.0 (MW071)
November 2021	2	3.20 (MW070)	4.70 (MW071)	203.0 (MW071)	247.5 (MW070)	5.85 (MW070)	6.66 (MW071)	352.5 (MW071)	403.7 (MW070)	21.2 (MW070)	21.3 (MW071)
May 2022	2	4.22 (MW070)	5.55 (MW071)	89.7 (MW071)	166.0 (MW070)	6.32 (MW070)	6.49 (MW071)	264.2 (MW070)	287.6 (MW071)	20.1 (MW070)	21.0 (MW071)
November 2022	2	5.30 (MW070)	6.70 (MW071)	93.9 (MW071)	124.1 (MW070)	6.13 (MW070)	6.35 (MW071)	349.9 (MW070)	356.4 (MW071)	19.1 (MW070)	20.1 (MW071)
May 2023	2	0.76 (MW070)	4.31 (MW071)	100.7 (MW071)	215.2 (MW070)	5.84 (MW070)	6.17 (MW071)	287.8 (MW070)	328.1 (MW071)	18.2 (MW070)	18.4 (MW071)

Table 10 Summary of groundwater quality parameters – alluvial

Sampling Event	Number of samples	Dissolved Oxygen (mg/L)		Electrical Conductivity (µS/cm)		pH		Correct redox (mV)		Temperature	
	Count	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
On-Site Management Area											
May 2021	52	1.00 (MW108)	9.43 (MW014)	67.4 (MW022)	20873.0 (MW005)	5.68 (MW091)	8.92 (MW015)	113.0 (MW043)	320.0 (MW020)	17.2 (MW022)	20.9 (MW059)
November 2021	70	0.12 (MW015)	5.30 (MW070)	145.8 (MW041)	20200.0 (MW005)	5.60 (MW060)	7.90 (MW028)	97.5 (MW114)	401.0 (MW060)	16.9 (MW016)	26.5 (MW032)
May 2022	64	0.45 (MW064)	6.51 (MW005)	81.6 (MW043)	8922.0 (MW111)	5.92 (MW076)	7.76 (MW052)	135.0 (MW051)	420.5 (MW059)	16.6 (MW012)	22.2 (MW054)
November 2022	67	0.37 (MW064)	10.77 (MW112)	67.6 (MW015)	15124.0 (MW005)	5.88 (MW080)	7.73 (MW028)	54.2 (MW064)	379.4 (MW009)	17.7 (MW112)	26.9 (MW114)
May 2023	66	0.32 (MW068)	3.99 (MW025)	163.2 (MW043)	9627.0 (MW062)	5.71 (MW056)	7.71 (MW016)	86.9 (MW053)	339.1 (MW024)	14.0 (MW024)	21.6 (MW032)
Off-Site Management Area and areas outside the Management Area											
May 2021	8	0.79 (MW092)	7.86 (MW081)	399.5 (MW076)	3175.0 (MW098)	5.97 (MW060)	8.45 (MW120)	204.8 (MW092)	310.1 (MW047)	16.9 (MW016)	20.5 (MW064)
November 2021[1]	16	0.16 (MW121)	4.00 (MW086)	167.1 (MW097)	2476.0 (MW098)	5.89 (MW091)	6.94 (MW097)	58.8 (MW121)	370.0 (MW091)	18.3 (MW026)	23.8 (MW106)
May 2022	12	0.85 (MW098)	2.54 (MW091)	176.0 (MW097)	2021.0 (MW098)	6.03 (MW106)	7.29 (MW078)	246.8 (MW098)	401.9 (MW077)	16.9 (MW016)	20.1 (MW047)
November 2022	11	0.79 (MW092)	4.16 (MW079)	163.9 (MW091)	1466.0 (MW081)	5.68 (MW091)	6.98 (MW032)	189.5 (MW092)	441.3 (MW081)	20.3 (MW042)	27.3 (MW078)
May 2023	15	0.04 (MW143)	2.57 (MW081)	187.9 (MW091)	4615.0 (MW144)	5.76 (MW092)	6.89 (MW144)	171.3 (MW082)	482.7 (MW143)	16.9 (MW016)	20.4 (MW143)

Note:

[1] December 2021 resampling event included.

The readings presented in **Table 9** and **Table 10** indicate:

- Generally oxygenated conditions, with highest DO readings observed in May 2021 and November 2022
- Fresh to saline groundwater conditions. Highest EC conditions (over 10,000 µS/cm, representative of relatively saline water conditions) were recorded in on-Site wells (MW005, MW062). The lowest EC conditions (below 200 µS/cm, representative of relatively fresh water conditions) were recorded in both on-Site and Site boundary wells (MW005, MW015, MW022, MW025, MW033, MW040, MW041, MW043, MW048, MW050, MW070, MW071 and MW072) as well as off-Site wells (MW091 and MW092).
- Acidic to neutral conditions, with slightly alkaline conditions present
- Oxidising conditions
- Temperature ranges are considered consistent with background conditions for the time of year of the sampling being conducted in each event.

7.1.5 PFAS Groundwater Analytical Results

Historical groundwater analytical results are presented in **Table T4** in **Appendix C** and monitoring activities are summarised in the OMP Sampling Event Factual Reports provided in **Appendix B**.

Groundwater sample results from May 2021, November 2021, May 2022, November 2022, and May 2023 are presented spatially on **Figures F5A** to **Figure F9B** in **Appendix A.**

The interpretive assessment of these results are discussed in **Section 8.2**.

A summary of analytical results from the OMP works is provided in **Table 11** (both on-Site Management Area and off-Site Management Area).

Deviations from the historical dataset for groundwater are summarised in **Table 12**, below and graphically on the temporal trend **Graph G4** to **G14** in **Appendix D**.

Table 11 Summary of PFOA, PFOS and PFOS+PFHxS Concentrations in Groundwater

Sampling Event	No. of Samples[1]	Compound	Concentration Range (µg/l) in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Exceedances of Human Health Criteria	No. of Exceedances of Ecological Criteria
On-Site Management Area						
May 2021	63	PFOA	0.01 µg/l (multiple) to 11.2 µg/l (MW051)	38	6	0
		PFOS	0.01 µg/l (MW067) to 80 µg/l (MW051)	52	NA	50
		PFOS+PFHxS	0.03 µg/l (MW025) to 367 µg/l (MW051)	60	53	NA
November 2021	90	PFOA	0.01 µg/l (multiple) to 39.4 µg/l (MW051)	52	12	1
		PFOS	0.01 µg/l (multiple) to 840 µg/l (MW118)	72	NA	70
		PFOS+PFHxS	0.03 µg/l (multiple) to 895 µg/l (MW051)	80	72	NA
May 2022	79	PFOA	0.01 µg/l (MW108) to 75.6 µg/l (MW107I)	50	9	3
		PFOS	0.01 µg/l (multiple) to 274 µg/l (MW051)	67	NA	67
		PFOS+PFHxS	0.01 µg/l (MW016) to 793 µg/l (MW051)	75	69	NA
November 2022	82	PFOA	0.01 µg/l (multiple) to 95 µg/l (MW107I)	47	8	2
		PFOS	0.01 µg/l (multiple) to 660 µg/l (MW051)	69	NA	67
		PFOS+PFHxS	0.01 µg/l (MW056) to 1,780 µg/l (MW051)	76	64	NA
May 2023	76	PFOA	0.01 µg/l (multiple) to 60.9 µg/l (MW051)	49	10	1
		PFOS	0.02 µg/l (multiple) to 530 µg/l (MW051)	61	NA	59
		PFOS+PFHxS	0.03 µg/l (multiple) to 1,380 µg/l (MW051)	70	62	NA
Off-Site Management Area and areas outside the Management Area						
May 2021	16	PFOA	0.02 µg/l (MW079) to 0.1 µg/l (MW080)	2	0	0
		PFOS	0.02 µg/l (multiple) to 0.88 µg/l (MW080)	5	NA	5
		PFOS+PFHxS	0.02 µg/l (multiple) to 3.09 µg/l (MW080)	6	2	NA

Sampling Event	No. of Samples[1]	Compound	Concentration Range (µg/l) in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Exceedances of Human Health Criteria	No. of Exceedances of Ecological Criteria
November 2021	20	PFOA	0.02 µg/l (MW079) to 0.18 µg/l (MW080)	5	0	0
		PFOS	0.01 µg/l (multiple) to 2.92 µg/l (MW080)	12	NA	12
		PFOS+PFHxS	0.02 µg/l (multiple) to 7.3 µg/l (MW080)	14	7	NA
May 2022	14	PFOA	0.02 µg/l (MW079) to 0.02 µg/l (MW079)	1	0	0
		PFOS	0.01 µg/l (MW078) to 0.52 µg/l (MW079)	8	NA	8
		PFOS+PFHxS	0.01 µg/l (multiple) to 1.77 µg/l (MW079)	11	7	NA
November 2022	14	PFOA	0.01 µg/l (MW078) to 0.08 µg/l (MW106)	5	0	0
		PFOS	0.02 µg/l (multiple) to 1.64 µg/l (MW106)	10	NA	10
		PFOS+PFHxS	0.01 µg/l (MW075) to 3.84 µg/l (MW106)	12	8	NA
May 2023	23	PFOA	0.01 µg/l (multiple) to 0.17 µg/l (MW080)	9	0	0
		PFOS	0.01 µg/l (MW144) to 2.87 µg/l (MW080)	15	NA	15
		PFOS+PFHxS	0.03 µg/l (multiple) to 6.49 µg/l (MW080)	18	11	NA

Notes:

NA = Not applicable

multiple - the value is applicable to multiple locations

[1] – Sample counts both inter and intra laboratory field duplicates

Table 12 Deviations from Historical Groundwater Data Set

Sampling Events	Compounds	First-time Detections (µg/L)	First-time exceedances of ecological criteria (µg/L)	First-time exceedances of human health criteria (µg/L)	New historical minimums (µg/L)	New historical maximums (µg/L)
May 2021	PFOS	MW008 (0.02) MW044 (0.02) MW044 (0.038; Interlab_D) MW120 (0.02) MW121 (0.02)	MW008 (0.02) MW044 (0.02) MW044 (0.038; Interlab_D) MW120 (0.02) MW121 (0.02)		MW005 (0.04) MW021 (3.08) MW032 (0.34) MW034 (0.08) MW040 (65.20) MW047 (3.08) MW060 (0.40; Interlab_D) MW069 (0.20) MW071 (1.00) MW072 (12.8) MW074 (1.04) MW080 (0.88)	MW008 (0.02) MW009 (0.15) MW027 (0.31) MW033 (3.12) MW042 (0.16) MW044 (0.02) MW044 (0.038; Interlab_D) MW045 (0.12) MW052 (0.27) MW058 (0.13) MW063 (2.76) MW064 (0.34) MW066 (0.37) MW120 (0.02) MW121 (0.02)
	PFOA				MW021 (0.31) MW032 (0.2) MW040 (1.23) MW069 (0.01) MW071 (0.03) MW072 (1.90) MW073 (0.82) MW120 (<LOR) MW121 (<LOR)	MW027 (0.03) MW028 (0.16) MW033 (0.36) MW068 (0.07)

Sampling Events	Compounds	First-time Detections (µg/L)	First-time exceedances of ecological criteria (µg/L)	First-time exceedances of human health criteria (µg/L)	New historical minimums (µg/L)	New historical maximums (µg/L)
	PFHxS+PFOS	MW120 (0.02) MW121 (0.02)		Drinking Water: MW042 (0.19)	MW005 (0.14) MW021 (5.51) MW025 (0.03) MW030 (2.91) MW032 (5.69) MW034 (1.03) MW040 (88.00) MW041 (0.15) MW044 (0.06) MW052 (14.5) MW062 (0.44) MW069 (0.35) MW071 (1.31) MW072 (64.3) MW073 (25.3) MW074 (25.00) MW080 (3.09)	MW008 (0.33) MW009 (0.18) MW014 (1.45) MW027 (1.29) MW028 (12.10) MW033 (17.30) MW042 (0.19) MW045 (0.19) MW064 (1.28) MW066 (1.22) MW079 (1.13) MW091 (0.07) MW120 (0.02) MW121 (0.02)
November 2021	PFOS	MW078 (0.01)	MW078 (0.01)		MW021 (2.76) MW021 (2.00; Interlab_D) MW033 (0.02) MW050 (4.96) MW050 (4.10; Interlab_D) MW060 (0.23) MW061 (0.27) MW063 (0.22) MW064 (0.14)	MW008 (0.05) MW008 (0.06; Field_D) MW020 (1.02) MW048 (0.05) MW051 (239.00) MW052 (0.33) MW068 (0.33) MW072 (25.6) MW078 (0.01) MW079 (0.08) MW106 (0.97) MW106 (0.53;

Sampling Events	Compounds	First-time Detections (µg/L)	First-time exceedances of ecological criteria (µg/L)	First-time exceedances of human health criteria (µg/L)	New historical minimums (µg/L)	New historical maximums (µg/L)
						Field_D) MW107D (7.51) MW107D (7.60; Interlab_D) MW107I (2.67) MW107I (7.88; Field_D) MW108 (0.62) MW108 (0.80; Field_D) MW109 (3.50) MW109 (3.21; Field_D) MW110 (0.10) MW111 (0.05) MW117 (69.60) MW118 (840.00) MW119 (6.05)
	PFOA		MW051 (39.4)	Drinking Water: MW107D (2.07) MW107D (1.9; Interlab_D)	MW012 (0.12) MW021 (0.21) MW021 (0.18; Interlab_D) MW050 (0.13) MW050 (0.12; Interlab_D) MW052 (0.29) MW060 (0.05) MW063 (0.05)	MW020 (0.24) MW051 (39.40) MW106 (0.08) MW106 (0.05; Field_D) MW107D (2.07) MW107D (1.90; Interlab_D) MW107I (2.32; Field_D) MW108 (0.13) MW108 (0.16;

Sampling Events	Compounds	First-time Detections (µg/L)	First-time exceedances of ecological criteria (µg/L)	First-time exceedances of human health criteria (µg/L)	New historical minimums (µg/L)	New historical maximums (µg/L)
						Field_D) MW109 (0.20) MW109 (0.19; Field_D) MW110 (0.05) MW117 (1.53) MW118 (3.24) MW119 (0.26)
November 2021	PFHxS+PFOS				MW005 (0.12) MW009 (0.08) MW010 (0.32) MW012 (4.40) MW021 (4.33) MW021 (3.30; Interlab_D) MW030 (2.51) MW030 (2.00; Interlab_D) MW033 (0.12) MW034 (0.27) MW041 (0.13) MW041 (0.14; Interlab_D) MW050 (6.26) MW050 (5.30; Interlab_D) MW060 (0.68) MW061 (0.68) MW062 (0.42) MW063 (1.28)	MW001 (0.14; Field_D) MW008 (0.61) MW008 (0.83; Field_D) MW020 (15.8) MW048 (0.22) MW051 (895.00) MW072 (130) MW078 (0.19) MW106 (2.86) MW106 (1.82; Field_D) MW107D (21.70) MW107D (23.00; Interlab_D) MW107I (26.70; Field_D) MW108 (1.50) MW108 (1.75; Field_D) MW109 (6.37)

Sampling Events	Compounds	First-time Detections (µg/L)	First-time exceedances of ecological criteria (µg/L)	First-time exceedances of human health criteria (µg/L)	New historical minimums (µg/L)	New historical maximums (µg/L)
					MW064 (0.52) MW065 (0.19)	MW109 (5.97; Field_D) MW110 (2.46) MW117 (106) MW118 (860) MW119 (10.2)
May 2022	PFOS	MW007 (0.01) MW016 (0.01)	MW007 (0.01) MW016 (0.01)		MW012 (0.41) MW020 (0.22) MW022 (1.67) MW047 (0.82) MW071 (0.75) MW073 (1.53) MW080 (0.06) MW106 (0.07)	MW007 (0.01) MW008 (0.07) MW008 (0.07; Interlab_D) MW016 (0.01) MW027 (0.49) MW027 (0.54; Field_D) MW036 (0.08) MW036 (0.13; Field_D) MW043 (0.15) MW051 (274) MW052 (0.71) MW057 (0.32) MW066 (0.41) MW066 (0.49; Field_D) MW068 (1.14) MW068 (0.88; Interlab_D) MW072 (32.10) MW078 (0.02; Interlab_D) MW079 (0.52)

Sampling Events	Compounds	First-time Detections (µg/L)	First-time exceedances of ecological criteria (µg/L)	First-time exceedances of human health criteria (µg/L)	New historical minimums (µg/L)	New historical maximums (µg/L)
						MW081 (0.07) MW107I (156.00) MW107I (266.00) MW107I (62.70) MW107I (64.70; Field_D) MW110 (0.11)
May 2022	PFOA		MW107I (32.40) MW107I (75.60)		MW012 (0.06) MW020 (0.03) MW022 (0.06) MW040 (0.59) MW047 (0.03) MW052 (0.04)	MW010 (0.32) MW036 (0.02) MW036 (0.02; Field_D) MW053 (0.13) MW057 (0.07) MW068 (0.21) MW068 (0.20; Interlab_D) MW107I (32.40) MW107I (75.60) MW107I (10.60) MW107I (12.00; Field_D)
	PFHxS+PFOS	MW016 (0.01) MW098 (0.01)			MW012 (2.54) MW017 (5.78) MW022 (3.73) MW030 (1.42) MW040 (79.60) MW047 (1.42) MW052 (1.53) MW062 (0.40) MW071 (1.00)	MW014 (1.66) MW016 (0.01) MW027 (1.73) MW027 (2.14; Field_D) MW036 (1.05) MW036 (1.58; Field_D) MW043 (0.17)

Sampling Events	Compounds	First-time Detections (µg/L)	First-time exceedances of ecological criteria (µg/L)	First-time exceedances of human health criteria (µg/L)	New historical minimums (µg/L)	New historical maximums (µg/L)
					MW077 (0.06) MW080 (0.59)	MW048 (0.25) MW066 (1.46; Field_D) MW068 (5.01) MW068 (4.50; Interlab_D) MW078 (0.57) MW078 (0.43; Interlab_D) MW079 (1.77) MW081 (0.10) MW091 (0.09) MW098 (0.01) MW107I (411.00) MW107I (766.00) MW107I (155.00) MW107I (161.00; Field_D) MW111 (0.73)
November 2022	PFOS				MW005 (0.03) MW012 (0.19) MW017 (0.62) MW020 (0.08) MW022 (1.24) MW022 (0.91; Interlab_D) MW040 (38.10) MW041 (0.03) MW047 (0.55) MW060 (0.14;	MW008 (0.37) MW008 (0.39; Field_D) MW008 (0.34; Interlab_D) MW050 (24.40) MW051 (660.00) MW058 (0.26) MW063 (4.43) MW066 (0.52) MW068 (1.75)

Sampling Events	Compounds	First-time Detections (µg/L)	First-time exceedances of ecological criteria (µg/L)	First-time exceedances of human health criteria (µg/L)	New historical minimums (µg/L)	New historical maximums (µg/L)
					Field_D) MW060 (0.14; Interlab_D)	MW070 (1.24) MW072 (110.00) MW078 (0.03) MW078 (0.03; Interlab_D) MW079 (1.44) MW106 (1.64) MW106 (1.10; Interlab_D) MW107I (370.00) MW109 (3.81) MW110 (0.12)
November 2022	PFOA	MW078 (0.01)			MW012 (0.02) MW020 (0.01) MW047 (0.02) MW052 (0.03) MW060 (0.04) MW060 (0.04; Field_D) MW060 (0.03; Interlab_D)	MW028 (0.24) MW036 (0.04) MW050 (0.99) MW051 (65.30) MW057 (0.08) MW068 (0.25) MW072 (5.04) MW078 (0.01) MW079 (0.06) MW107I (95.00)
	PFHxS+PFOS				MW005 (0.08) MW012 (1.52) MW017 (2.79) MW020 (1.97) MW022 (3.63) MW022 (3.10; Interlab_D)	MW028 (16.60) MW036 (1.70) MW048 (0.37) MW050 (37.80) MW051 (1780.00) MW053 (2.03) MW054 (0.41)

Sampling Events	Compounds	First-time Detections (µg/L)	First-time exceedances of ecological criteria (µg/L)	First-time exceedances of human health criteria (µg/L)	New historical minimums (µg/L)	New historical maximums (µg/L)
					MW040 (72.50) MW041 (0.05) MW047 (1.11) MW060 (0.30; Field_D) MW060 (0.31; Interlab_D) MW060 (0.41) MW073 (24.30) MW077 (0.05) MW111 (0.09)	MW057 (1.33) MW068 (8.39) MW072 (213.00) MW076 (0.04) MW078 (0.70) MW078 (0.61; Interlab_D) MW079 (3.08) MW081 (0.11) MW106 (3.84) MW106 (3; Interlab_D) MW107I (1100.00) MW109 (6.41)
May 2023	PFOS	MW143 (0.58) MW143 (0.76; Field_D) MW143 (0.65; Interlab_D) MW144 (0.01)	MW143 (0.58) MW143 (0.76; Field_D) MW143 (0.65; Interlab_D) MW144 (0.01)		MW010 (0.12) MW020 (0.05) MW061 (0.21) MW064 (0.13) MW066 (0.02) MW071 (0.73)	MW015 (4.34) MW025 (0.11) MW052 (2.11) MW079 (1.52; Field_D) MW091 (0.04) MW110 (0.15) MW143 (0.58) MW143 (0.76; Field_D) MW143 (0.65; Interlab_D) MW144 (0.01)
	PFOA	MW143 (0.01) MW143 (0.01; Field_D)			-	MW014 (0.03) MW053 (0.56) MW074 (1.94)

Sampling Events	Compounds	First-time Detections (µg/L)	First-time exceedances of ecological criteria (µg/L)	First-time exceedances of human health criteria (µg/L)	New historical minimums (µg/L)	New historical maximums (µg/L)
		MW143 (0.01; Interlab_D)				MW110 (0.06) MW143 (0.01) MW143 (0.01; Field_D) MW143 (0.01; Interlab_D)
	PFHxS+PFOS	MW143 (0.69) MW143 (0.90; Field_D) MW143 (0.81; Interlab_D) MW144 (0.06)		Drinking Water: MW143 (0.69) MW143 (0.90; Field_D) MW143 (0.81; Interlab_D)	MW005 (0.06) MW010 (0.25) MW017 (2.75) MW020 (1.79) MW030 (1.03) MW036 (0.44) MW057 (0.75) MW061 (0.60) MW066 (0.06)	MW014 (1.73) MW025 (0.15) MW053 (15.4) MW054 (0.42) MW058 (11.70) MW059 (6.04) MW074 (65.20) MW079 (3.14; Field_D) MW114 (0.17) MW143 (0.69) MW143 (0.90; Field_D) MW143 (0.81; Interlab_D) MW144 (0.06)

7.1.6 Groundwater Geochemistry

Selected groundwater samples were also analysed for geochemical parameters during the monitoring period. These are presented on **Table T4** (in **Appendix C**) and the Piper Plots are presented as **Graph G2** and **Graph G3** in **Appendix D**.

Major ion composition was previously assessed in groundwater and surface water samples to assess groundwater flow paths (AECOM, 2018a and AECOM, 2021d). During this monitoring period (i.e. November 2021 and November 2022), major ion data was also reported in selected groundwater and surface water samples, which is presented as Piper Plots in **Appendix D**.

In general, major ion results for November 2021 and November 2022 displayed similar trends to AECOM (2018a) and AECOM (2021b), as summarised below:

- The cation composition is dominated by sodium chloride, indicating saline conditions and the trend in the lower left triangular diagram indicates saline water is interacting with fresh water. This is likely a result from a combination of mechanisms including the influence of the salt wedge emanating from the Hawkesbury River mixing with fresher groundwater discharging from the CFA to the low lands, and surface water infiltration following rainfall mixing with groundwater
- Samples collected from locations within the LFA and CFA show relatively equivalent calcium and sodium concentrations, as well as chloride concentrations indicating that the aquifers are likely to be connected.

The general observations from major ions in samples collected during the AECOM (2018a), AECOM (2021b) and the November 2021 and November 2022 monitoring event are consistent with the conceptual understanding and modelled groundwater flow where freshwater infiltration mixes with more saline groundwater and flows to the northeast.

7.2 Surface Water Results

7.2.1 Surface Water Field Observation

Organic odours were noted at four surface water locations (SW013, SW016, SW018, SW037) during the monitoring period. Foam was observed at the following three surface water locations during the monitoring period:

- SW001 on 7 May 2021
- SW002 on 5 May 2021
- SW024 on 3 November 2022.

7.2.2 Surface Water Quality Parameters

Surface water quality parameters were measured prior to collecting surface water samples and are presented in **Table T2** in **Appendix C** and summarised below in **Table 13**.

Table 13 Summary of surface water quality parameters

Gauging Event	Dissolved Oxygen (mg/L)		Electrical Conductivity (µS/cm)		pH		Correct redox (mV)		Temperature	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
On-Site management area										
May 2021	1.23 (SW008)	9.23 (SW037)	54.6 (SW011)	1355.0 (SW007)	5.68 (SW014)	9.02 (SW037)	178.4 (SW037)	416.7 (SW002)	15.3 (SW005)	20.4 (SW003)
November 2021	0.00 (SW037)	6.61 (SW001)	59.3 (SW001)	1642.0 (SW005)	5.70 (SW014)	7.62 (SW005)	34.2 (SW037)	373.9 (SW001)	18.3 (SW007)	22.1 (SW001)
May 2022	0.60 (SW014)	10.38 (SW013)	147.0 (SW014)	1504.0 (SW007)	6.78 (SW009)	8.07 (SW011)	216.5 (SW014)	341.2 (SW013)	13.5 (SW019)	21.7 (SW001)
November 2022	0.49 (SW014)	6.59 (SW008)	11.9 (SW008)	1432.0 (SW005)	6.34 (SW014)	8.08 (SW037)	128.4 (SW014)	305.8 (SW009)	17.4 (SW014)	32.2 (SW008)
May 2023	0.63 (SW005)	10.15 (SW011)	77.4 (SW011)	1004.0 (SW007)	6.15 (SW016)	8.65 (SW011)	109.8 (SW014)	275.4 (SW013)	10.6 (SW014)	19.8 (SW013)
Off-Site management area and off Site locations										
May 2021	0.65 (SW016)	8.64 (SW030)	140.2 (SW022)	1789.0 (SW018)	5.68 (SW014)	7.47 (SW032)	244.3 (SW035)	320.0 (SW014)	15.8 (SW009)	20.4 (SW003)
November 2021	0.32 (SW016)	9.46 (SW030)	6.6 (SW020)	781.0 (SW032)	6.47 (SW003)	7.68 (SW035)	216.1 (SW015)	359.1 (SW024)	16.7 (SW030)	28.9 (SW032)
May 2022	2.20 (SW022)	6.70 (SW024)	118.2 (SW024)	1559.0 (SW015)	6.93 (SW020)	7.45 (SW035)	279.1 (SW015)	371.8 (SW023)	11.8 (SW023)	16.7 (SW030)
November 2022	1.38 (SW019)	12.44 (SW035)	134.4 (SW030)	1880.0 (SW015)	6.62 (SW019)	8.37 (SW020)	241.9 (SW019)	366.3 (SW035)	22.2 (SW022)	27.3 (SW015)
May 2023	2.30 (SW015)	9.06 (SW035)	204.2 (SW016)	1211.0 (SW015)	6.15 (SW016)	7.61 (SW015)	208.4 (SW015)	357.1 (SW015)	2.6 (SW016)	19.4 (SW035)

The readings presented in **Table 13** indicate:

- Generally oxygenated conditions
- Generally fresh, with some brackish water conditions (over 1,500 µS/cm) noted in both on-Site and off-Site locations
- Acidic to alkaline conditions. Note that the elevated pH (9.02 in May 2021) reported at SW037 is consistent with historical pH measurements at this location, which is likely to be attributed to the STP facility
- Oxidised conditions
- Temperature ranges are considered consistent with background conditions for the time of year of the sampling being conducted in each event.

7.2.3 PFAS Surface Water Analytical Results

Historical surface water analytical results are presented in **Table T5** in **Appendix C** and monitoring activities are summarised in the OMP Factual Reports provided in **Appendix B**. A summary of analytical results are provided in **Table 14** below.

Note that surface water sample results for all sampling events within the monitoring period are presented in **Figure F10A** to **Figure F14B**, **Appendix A,** and are further discussed in **Section 8.6**.

Deviations from the historical dataset are provided in **Table 15** below. Temporal trend graphs for surface water are presented in **Graphs G15** to **G24** in **Appendix D** and discussed in **Section 8.4**.

Table 14 Summary of PFOA, PFOS and PFOS+PFHxS Concentrations in Surface Water

Sampling Event	No. of Samples[1]	Compound	Concentration Range (µg/l) in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Exceedances of Human Health Criteria	No. of Exceedances of Ecological Criteria
On-Site Management Area						
May 2021	12	PFOA	0.02 µg/l (SW008) to 0.85 µg/l (SW001)	8	0	0
		PFOS	0.05 µg/l (multiple) to 7.54 µg/l (SW001)	12	NA	13
		PFOS+PFHxS	0.12 µg/l (SW007) to 10.3 µg/l (SW001)	12	6	NA
November 2021	16	PFOA	0.01 µg/l (multiple) to 1 µg/l (SW003)	12	0	0
		PFOS	0.07 µg/l (SW007) to 41.6 µg/l (SW002)	16	NA	14
		PFOS+PFHxS	0.13 µg/l (SW008) to 56.6 µg/l (SW002)	16	4	NA
May 2022	14	PFOA	0.01 µg/l (multiple) to 3.49 µg/l (SW003)	12	0	0
		PFOS	0.09 µg/l (multiple) to 74 µg/l (SW003)	14	NA	15
		PFOS+PFHxS	0.31 µg/l (SW007) to 129 µg/l (SW003)	14	5	NA
November 2022	11	PFOA	0.01 µg/l (SW008) to 1.25 µg/l (SW003)	6	0	0
		PFOS	0.14 µg/l (multiple) to 28.6 µg/l (SW003)	11	NA	14
		PFOS+PFHxS	0.22 µg/l (SW009) to 46.2 µg/l (SW003)	11	3	NA
May 2023	11	PFOA	0.02 µg/l (SW011) to 3.69 µg/l (SW001)	7	0	0
		PFOS	0.06 µg/l (SW008) to 17 µg/l (SW001)	10	NA	12
		PFOS+PFHxS	0.16 µg/l (multiple) to 20.1 µg/l (SW001)	10	4	NA
Off-Site Management Area and other off-Site locations*						
May 2021	12	PFOA	0.01 µg/l (SW020) to 0.08 µg/l (SW023)	5	0	0
		PFOS	0.02 µg/l (SW022) to 1.66 µg/l (SW023)	11	NA	11
		PFOS+PFHxS	0.02 µg/l (SW022) to 2.47 µg/l (SW023)	11	1	NA

Sampling Event	No. of Samples[1]	Compound	Concentration Range (µg/l) in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Exceedances of Human Health Criteria	No. of Exceedances of Ecological Criteria
November 2021	11	PFOA	0.01 µg/l (multiple) to 0.01 µg/l (multiple)	2	0	0
		PFOS	0.01 µg/l (multiple) to 0.3 µg/l (SW023)	10	NA	10
		PFOS+PFHxS	0.01 µg/l (multiple) to 0.43 µg/l (SW023)	10	1	NA
May 2022	15	PFOA	0.01 µg/l (SW020) to 0.03 µg/l (SW023)	4	0	0
		PFOS	0.03 µg/l (multiple) to 0.46 µg/l (SW023)	11	NA	11
		PFOS+PFHxS	0.06 µg/l (SW019) to 0.83 µg/l (SW023)	11	2	NA
November 2022	15	PFOA	0.01 µg/l (multiple) to 0.02 µg/l (multiple)	8	0	0
		PFOS	0.03 µg/l (SW018) to 0.4 µg/l (SW016)	13	NA	13
		sum of PFOS + PFHxS	0.05 µg/l (SW018) to 0.98 µg/l (SW016)	13	1	NA
May 2023[1]	17	PFOA	0.01 µg/l (SW030) to 0.02 µg/l (SW015)	2	0	0
		PFOS	0.02 µg/l (multiple) to 0.45 µg/l (SW015)	14	NA	14
		PFOS+PFHxS	0.03 µg/l (multiple) to 0.68 µg/l (SW015)	14	0	NA

Notes: LOR = Laboratory Limit of Reporting

* = SW020, SW024, SW030, SW035 and SW081 are located outside the Management Area

[1] = May 2023 data assessment includes resampling completed on 9 June 2023.

Table 15 Deviations from Historical Surface Water Dataset

Sampling Events	Compounds	First-time Detections (µg/l)	First-time exceedances of ecological criteria (µg/l)	First-time exceedances of human health criteria (µg/l)	New historical minimums (µg/l)	New historical maximums (µg/l)
May 2021	PFOS	-	-	-	SW001 (7.54) SW003 (6.41) SW011 (1.30; Interlab_D) SW011 (1.38) SW032 (0.76)	SW014 (0.80; Field_D) SW014 (0.60) SW018 (0.72; Field_D) SW018 (0.62) SW020 (0.17) SW023 (1.66) SW030 (0.04) SW035 (0.05)
	PFOA	SW018 (0.04; Field_D) SW018 (0.04)			SW001 (0.85) SW011 (0.024; Interlab_D) SW011 (0.04) SW032 (0.04)	SW014 (0.20; Field_D) SW014 (0.15) SW018 (0.04; Field_D) SW018 (0.04) SW023 (0.08)
	PFHxS+PFOS	-	-	SW014 (5.60; Field_D) SW014 (4.06) SW023 (2.47)	SW001 (10.30) SW003 (9.23) SW007 (0.12) SW011 (1.77) SW032 (1.38)	SW014 (5.60; Field_D) SW014 (4.06) SW018 (1.34; Field_D) SW018 (1.16) SW020 (0.19) SW023 (2.47) SW030 (0.06) SW035 (0.05)

Sampling Events	Compounds	First-time Detections (µg/l)	First-time exceedances of ecological criteria (µg/l)	First-time exceedances of human health criteria (µg/l)	New historical minimums (µg/l)	New historical maximums (µg/l)
November 2021	PFOS	-	-	-	SW001 (4.10; Interlab_D) SW001 (4.10) SW015 (0.08) SW020 (0.02)	-
	PFOA	-	-	-	SW001 (0.23; Interlab_D) SW001 (0.23)	-
	PFHxS+PFOS	-	-	-	SW001 (5.00; Interlab_D) SW001 (5.00) SW008 (0.16; Field_D) SW008 (0.13)	-
May 2022	PFOS	-		-	-	SW002 (66.10) SW003 (60.60; Field_D) SW003 (74.00) SW014 (1.24) SW016 (0.06)
	PFOA	SW005 (0.01)	-	-	-	SW003 (3.49) SW005 (0.01)
	PFHxS+PFOS	-	-	-	-	SW002 (107.00) SW003 (129.00) SW003 (97.30; Field_D) SW005 (0.39) SW007 (0.31; Field_D) SW007 (0.32)

Sampling Events	Compounds	First-time Detections (µg/l)	First-time exceedances of ecological criteria (µg/l)	First-time exceedances of human health criteria (µg/l)	New historical minimums (µg/l)	New historical maximums (µg/l)
						SW016 (0.23) SW035 (0.08)
November 2022	PFOS	-	-	-	-	SW007 (0.14) SW016 (0.34; Field_D) SW016 (0.40)
	PFOA	SW016 (0.02; Field_D) SW016 (0.02)	-	-	-	SW016 (0.02; Field_D) SW016 (0.02)
	PFHxS+PFOS	-	-	-	-	SW016 (0.83; Field_D) SW016 (0.98) SW022 (0.23; Field_D) SW022 (0.25) SW035 (0.09)
May 2023	PFOS	-	-	-	-	-
	PFOA	-	-	-	-	-
	PFHxS+PFOS	-	-	-	-	SW037 (0.91)

7.2.4 Surface Water Geochemistry

Selected surface water samples were also analysed for the geochemical parameters during the monitoring period. These are presented on **Table T5** (in **Appendix C**) and on Piper Plots **Graph G2** and **Graph G3** in **Appendix D**.

Major ion composition was previously assessed in groundwater and surface water to assess groundwater flow paths (AECOM, 2018a and AECOM, 2021d).

In general, the major ions reported in November 2021 and November 2022 were similar to those previously reported (AECOM, 2018a and AECOM, 2021d).

The data for surface water locations selected on-Site and in up-stream water bodies were primarily indicative of freshwater conditions whilst those in the receiving surface water environments of Rickabys Creek and/or other Hawkesbury River tributaries reported composition indicative of saline conditions.

7.3 Sediment Results

7.3.1 Sediment Field Observations

The sediment observations during the monitoring period generally comprised sandy silt, sand, silty clay or silt which were light brown to dark brown or light grey to grey, and generally included organic matter in the form of rootlets and/or algae and/or leaves.

7.3.2 Sediment Analytical Results

Sediment samples were co-located and collected with surface water samples. Analytical results are presented spatially on **Figure F15A** to **Figure F19B** – **Appendix A**. Historical sediment analytical results are presented in **Table T6** in **Appendix C** and monitoring activities are summarised in the OMP Factual Reports provided in **Appendix B**.

A summary of analytical results is provided in **Table 16** and in **Table 17** below.

Deviations from the historical dataset for sediment are provided in **Table 17** below and graphically on the temporal trend Graphs G25 to G30 in **Appendix D**. Further discussion on the data trends for each Source Area are outlined in **Section 8.0** below.

Table 16 Sediment analytical results summary

Sampling Event	No. of Samples[1]	Compound	Concentration Range (µg/l) in Sampling Event	No. of Samples[1] with Concentration > LOR
On-Site Management Area				
May 2021	9	PFOA	0.0006 µg/l (SD013) to 0.0493 µg/l (SD001)	6
		PFOS	0.0012 µg/l (SD007) to 2.78 µg/l (SD001)	9
		PFOS+PFHxS	0.0014 µg/l (SD007) to 2.83 µg/l (SD001)	9
November 2021	11	PFOA	0.0005 µg/l (SD014) to 0.11 µg/l (SD001)	8
		PFOS	0.01 µg/l (SD007) to 14.3 µg/l (SD001)	11
		PFOS+PFHxS	0.0112 µg/l (SD007) to 14.4 µg/l (SD001)	11
May 2022	11	PFOA	0.0004 µg/l (SD011) to 0.0634 µg/l (SD001)	6
		PFOS	0.0015 µg/l (SD014) to 6.59 µg/l (SD001)	11

Sampling Event	No. of Samples[1]	Compound	Concentration Range (µg/l) in Sampling Event	No. of Samples[1] with Concentration > LOR
		PFOS+PFHxS	0.0018 µg/l (multiple) to 6.69 µg/l (SD001)	11
November 2022	10	PFOA	0.0004 µg/l (SD011) to 0.101 µg/l (SD001)	6
		PFOS	0.0045 µg/l (SD007) to 8.53 µg/l (SD001)	10
		PFOS+PFHxS	0.0049 µg/l (SD007) to 8.73 µg/l (SD001)	10
May 2023	10	PFOA	0.0006 µg/l (SD002) to 0.103 µg/l (SD001)	5
		PFOS	0.001 µg/l (SD007) to 13.9 µg/l (SD001)	10
		PFOS+PFHxS	0.001 µg/l (SD007) to 14 µg/l (SD001)	10
Off-Site Management Area, and areas outside the Management Area*				
May 2021	10	PFOA	0.0002 µg/l (multiple) to 0.0005 µg/l (multiple)	4
		PFOS	0.0021 µg/l (SD035) to 0.0712 µg/l (SD009)	8
		PFOS+PFHxS	0.0021 µg/l (SD035) to 0.0749 µg/l (SD009)	8
November 2021	15	PFOA	0.0003 µg/l (multiple) to 0.0003 µg/l (multiple)	2
		PFOS	0.0005 µg/l (SD018) to 0.0493 µg/l (SD009)	13
		PFOS+PFHxS	0.0005 µg/l (SD018) to 0.0525 µg/l (SD009)	13
May 2022	13	PFOA	0.0005 µg/l (SD009) to 0.0005 µg/l (SD009)	1
		PFOS	0.0003 µg/l (SD023) to 0.0541 µg/l (SD009)	12
		PFOS+PFHxS	0.0003 µg/l (SD023) to 0.062 µg/l (SD009)	12
November 2022	16	PFOA	<LOR	0
		PFOS	0.0006 µg/l (SD035) to 0.0209 µg/l (SD008)	14
		PFOS+PFHxS	0.0006 µg/l (SD035) to 0.0233 µg/l (SD008)	14
May 2023	16	PFOA	0.0002 µg/l (SD009) to 0.0002 µg/l (SD009)	1
		PFOS	0.0001 µg/l (SD030) to 0.0406 µg/l (SD008)	13
		PFOS+PFHxS	0.0001 µg/l (SD030) to 0.0413 µg/l (SD008)	13

Note:
1 – Sample count includes primary samples and field duplicate samples
multiple - the value is applicable to multiple locations

Table 17 Deviations from Historical Sediment Dataset

Sampling Events	Compounds	First-time Detections (µg/l)	First-time exceedances of ecological criteria (µg/l)	First-time exceedances of human health criteria (µg/l)	New historical minimums (µg/l)	New historical maximums (µg/l)
May 2021	PFOS	SD020 (0.0055)	-	-	SD001 (1.9800) SD007 (0.0012) SD008 (0.0043) SD015 (0.0048)	SD016 (0.0080) SD019 (0.0036) SD020 (0.0055) SD035 (0.0021)
	PFOA	SD016 (0.0005) SD019 (0.0002)	-	-	SD001 (0.0124)	SD014 (0.0032) SD016 (0.0005) SD019 (0.0002) SD032 (0.0008)
	PFHxS+PFOS	SD020 (0.0055)	-	-	SD001 (1.9900) SD007 (0.0014) SD008 (0.0063) SD015 (0.0053)	SD016 (0.0086) SD019 (0.0042) SD020 (0.0055) SD035 (0.0021)
November 2021	PFOS	-	-	-	SD008 (0.0036; Field_D) SD015 (0.0016)	SD005 (0.0167) SD013 (0.1780) SD019 (0.0056)
	PFOA	-	-	-	SD002 (0.0028)	SD013 (0.0008)
	PFHxS+PFOS	-	-	-	SD008 (0.0046; Field_D) SD015 (0.0016)	SD005 (0.0179) SD013 (0.2140) SD019 (0.0065) SD035 (0.0022)

Sampling Events	Compounds	First-time Detections (µg/l)	First-time exceedances of ecological criteria (µg/l)	First-time exceedances of human health criteria (µg/l)	New historical minimums (µg/l)	New historical maximums (µg/l)
May 2022	PFOS	SD024 (0.0009)	-	-	SD019 (0.0008) SD023 (0.0003)	SD024 (0.0009)
	PFOA	-	-	-	-	-
	PFHxS+PFOS	SD024 (0.0009)	-	-	SD019 (0.0008) SD023 (0.0003)	SD024 (0.0009)
November 2022	PFOS	-	-	-	SD009 (0.0161)	SD022 (0.0100; Field_D) SD022 (0.0068; Interlab_D) SD022 (0.0049) SD030 (0.0025; Interlab_D)
	PFOA	-	-	-	-	-
	PFHxS+PFOS	-	-	-	SD009 (0.0179)	SD022 (0.0116; Field_D) SD022 (0.0077; Interlab_D) SD022 (0.0056) SD030 (0.0029; Interlab_D)

Sampling Events	Compounds	First-time Detections (µg/l)	First-time exceedances of ecological criteria (µg/l)	First-time exceedances of human health criteria (µg/l)	New historical minimums (µg/l)	New historical maximums (µg/l)
May 2023	PFOS	-	-	-	SD001 (1.700; Interlab_D) SD001 (0.599) SD002 (0.186) SD005 (0.004) SD007 (0.001) SD013 (0.004) SD019 (0.0005)	SD008 (0.0406)
	PFOA	-	-	-	SD001 (0.0037) SD002 (0.0006) SD003 (0.0016)	-
	PFHxS+PFOS	-	-	-	SD001 (0.6020) SD001 (1.8000; Interlab_D) SD002 (0.1910) SD005 (0.0042) SD007 (0.0010) SD013 (0.0052) SD019 (0.0005)	SD008 (0.0413) SW037 (0.9100)

8.0 Interpretive Analysis

8.1 Hydrogeology

The SWLs were measured in the groundwater monitoring wells to evaluate the groundwater elevations (m AHD). Depth to groundwater measurements collected during the current monitoring period and historical data are presented in **Table T3** (in **Appendix C**) and the inferred groundwater level contours are presented on **Figure F20** (May 2021) to **Figure F24** (May 2023) (**Appendix A**). Groundwater elevations in the perched and alluvial aquifers in May 2022 and November 2022 were generally higher than groundwater elevations reported in 2021 and 2023, following significant rainfall events where up to six times the respective monthly rainfall averages were recorded, resulting in widespread flooding events across the broader Hawkesbury River Catchment Area (discussed in **Section 6.3**). There were a number of locations where new maximum SWLs were reported, remaining locations were within historical ranges.

Groundwater depths in 2019 and 2020 and in some cases in July 2017 (DSI, AECOM 2018a) were reported to be lower than more recent events, which can be attributed to the historically drier conditions observed on the Site during these times, in comparison to higher rainfall conditions observed since February 2020.

8.2 Groundwater Results

8.2.1 Overview

The May 2021, November 2021, May 2022, November 2022, and May 2023 groundwater results for PFOS+PFHxS and PFOA compared to assessment criteria are provided in **Figures F5** to **Figure F9** in **Appendix A** and presented in **Table T4** in **Appendix C**.

A summary of changes to the nature and extent of PFAS groundwater contamination is discussed below.

8.2.2 PFAS Plume Characteristics

The current PFAS plume is presented on **Figure F25** (**Appendix A**).

The groundwater PFAS plume extents are generally consistent with the plume presented in the 2020 AIR, with the exception of the following changes identified during this monitoring period:

- Decreasing PFAS concentrations in groundwater at MW040 located in the FFTG following the completion of soil remediation works (refer **Section 6.1.3**)
- Higher PFAS concentrations detected on the northern boundary of the Site at MW107I. These increases were inferred to be in response to high rainfall mobilising PFAS from soil at this location. Therefore, remediation activities are planned for this area which are scheduled to commence in late 2023 to ensure this PFAS does not leave the Site boundary
- MW143 and MW144 were installed to replace MW098 and MW099 which were destroyed during flooding events in March 2021. The new wells were installed along Cupitts Lane south of Cooley Creek within the same hydrogeological unit as the destroyed wells. MW143 and MW144 were sampled for the first time in May 2023, reporting PFAS concentrations an order of magnitude higher than was previously reported at MW098 and MW099. The surface water concentrations nearby these wells were similar, and it is possible the PFAS detects in groundwater are likely to be a result of surface water transport during the flood events. The concentrations here will be monitored for changes at the next sampling event.
- Increasing PFAS concentrations in on-Site well, MW051 in the area used by Fitters, within the alluvial aquifer. This impact was considered to be localised and unlikely to be migrating due to the decreasing PFAS concentrations in down hydraulic gradient wells.

The Site and Management Areas experienced prolonged periods of elevated rainfall throughout the monitoring period, which has influenced the extent and fluctuations in concentrations of PFAS in groundwater.

Based on the concentrations of PFAS in groundwater, there is no significant change to the risk to human health and the environment. The frequency and locations of sampling remains sufficient. With closer evaluation of the groundwater characteristics associated with this Source Area to be ongoing.

8.3 Groundwater PFAS Temporal Trends

8.3.1 Overview

Temporal graphs and Mann-Kendal analysis are presented in **Appendix D** and **Appendix E**, respectively, for PFOS+PFHxS and PFOA concentrations in groundwater at the following selected locations indicative of areas of interest within the On-Site and Off-Site Management Areas:

- FFTG, Area South of the FFTG and western airfield: 6 monitoring wells
- Fire Station Building and Hanger 54: 5 monitoring wells
- Eastern airfield boundary: 4 monitoring wells
- Northern Site boundary adjacent FTF and AFCTA: 8 monitoring wells
- Site Boundary with Rickabys Creek: 3 monitoring wells
- STP and Off-Site: Bakers Lagoon: 7 monitoring wells.

A summary of historical groundwater concentrations of PFOA and PFOS+PFHxS are displayed graphically on temporal trend graphs for the PFAS source areas outlined in **Table 18** below.

Table 18 Temporal groundwater trend graphs for source areas

Graph ID	Area	Groundwater Locations
G4, G5	FFTG, Area South of the FFTG and western airfield	MW008, MW009, MW010, MW040, MW041, MW079
G6, G7	Fire Station Building and Hanger 54	MW024, MW025, MW028, MW062, MW063
G8, G9	Eastern airfield boundary	MW047, MW050, MW051, MW052
G10, G11	Northern Site boundary adjacent FTF and AFCTA	MW030, MW053, MW054, MW57, MW058, MW107I, MW107D, MW108
G12	Site Boundary with Rickabys Creek	MW001, MW095, MW114
G13	STP and Off-Site: Bakers Lagoon	MW021, MW022, MW109
G14	STP and Off-Site: Bakers Lagoon	MW021, MW022, MW023, MW097, MW098, MW109, MW110

The Mann Kendal analysis was used to assess the trends in the concentrations in both groundwater and surface water and whether they have a monotonic upward or downward trend. The significance of these trends is determined by the confidence factor, or *p* value, of the analysis, as follows.

- a confidence factor over 95% indicates that there is an increasing or decreasing trend
- a confidence factor over 90% indicates the there is a ‘probably increasing’ or ‘probably decreasing’ trend
- a confidence factor less than 90% indicates ‘Stable’ or ‘No Change’.

Trend analysis was only undertaken for locations which were sampled in the current monitoring period and for locations which were consistently greater than the LOR. Where sample results were less than the LOR, half the LOR was adopted for the Mann-Kendal analysis..

A summary of PFOS+PFHxS and PFOA concentrations for the select locations (including historical ranges and concentrations from the OMP events during the monitoring period) and trend analysis results are presented in tabular form in the following sections.

8.3.2 FFTG, Area South of the FFTG and western airfield

The changes in PFOS+PFHxS and PFOA concentrations in MW040 at the FFTG show a clear decreasing trend, as evident in the results of the Mann-Kendal assessment (refer to **Table 22**) and temporal graph (**Appendix D**). PFOS+PFHxS and PFOA concentrations in MW040 have steadily declined following the completion of soil remediation works at the FFTG (refer **Section 6.1.3**). This would infer that the soil remediation works have been successful in reducing the vertical migration of PFAS to groundwater however, further performance monitoring is required to confirm that remediation goals have been met.

The changes in PFOS+PFHxS and PFOA concentrations in wells in the western airfield demonstrate a general stable trend or no trend, with the exception of MW079 located on the Site boundary, cross-hydraulic gradient from the FFTG, which is displaying an increasing trend in the Mann Kendal analysis (**Table 19**). While the Mann-Kendal results indicate an increasing trend, further monitoring is required to confirm whether this trend is representative of increasing concentrations.

Table 19 FFTG, Area South of the FFTG and western airfield

Location ID	Analyte	Historical Range	OMP Events (Current Period)	Mann-Kendall Trend	
		Min – Max (µg/L)	Min – Max (µg/L)	Trend	Confidence Factor
MW008	PFOS+PFHxS	0.16 -0.3	0.28 – 0.83	*Increasing*	96.2%
MW009	PFOS+PFHxS	0.16	0.08 – 0.18	Stable	76.5%
MW010	PFOS+PFHxS	0.53 – 11.0	0.25 – 10.3	No trend	69.4%
	PFOA	<LOR – 0.21	<LOR – 0.32	No trend	65.7%
MW040	PFOS+PFHxS	190 - 969	72.5 - 199	Decreasing	>99.9%
	PFOA	2.09 – 9.8	0.59 – 3.98	Decreasing	98.6%
MW041	PFOS+PFHxS	0.17 – 0.29	0.05 – 0.16	Decreasing	99.7%
MW079	PFOS+PFHxS	0.69 – 1.09	0.9 – 3.14	Increasing	99.9%
	PFOA	0.01 – 0.04	0.02 – 0.06	No Trend	79.2%

n/s = not sampled

italics indicate low confidence in the Mann-Kendal trend analysis given concentrations are within 1 to 2 orders of magnitude of the LOR

8.3.3 Fire Station Building and Hanger 54

The changes in PFOS+PFHxS and PFOA concentrations in wells at the Fire Station Building and Hanger 54 continue to show a generally steady trend, this is with the exception of PFOS+PFHxS concentrations in MW028 where changes in concentration are presenting a ‘probably increasing’ trend (refer to **Table 20**). MW028 is located downgradient of the Fire Station Building and Hanger 54 but it’s connectivity to these areas is not clear, as concentrations in MW028 are elevated above the monitoring wells located in these two areas. Further monitoring is required to confirm this trend.

Table 20 Fire Station Building and Hanger 54

Location ID	Analyte	Historical Range	OMP Events (Current Period)	Mann-Kendall Trend	
		Min – Max (µg/L)	Min – Max (µg/L)	Trend	Confidence Factor
MW024	PFOS+PFHxS	0.04 – 1.33	0.34 – 0.55	*Probably increasing*	92.55%
MW025	PFOS+PFHxS	0.04 – 0.08	0.03 – 0.15	No trend	65.7%
MW028	PFOS+PFHxS	0.34 – 9.5	4.43 – 16.6	Probably increasing	94.0%
	PFOA	0.04 – 0.1	0.07 – 0.24	*Increasing*	96.2%

Location ID	Analyte	Historical Range	OMP Events (Current Period)	Mann-Kendall Trend	
		Min – Max (µg/L)	Min – Max (µg/L)	Trend	Confidence Factor
MW062	PFOS+PFHxS	0.48 – 0.95	0.40 – 0.81	Stable	76.2%
MW063	PFOS+PFHxS	8.99 – 21.5	1.28 – 15.6	Stable	54.0%
	PFOA	0.39 – 1.08	0.05 – 0.95	Stable	69.4%

n/s = not sampled

italics indicate low confidence in the Mann-Kendal trend analysis given concentrations are within 1 to 2 orders of magnitude of the LOR

8.3.4 Eastern airfield boundary

The changes in PFOS+PFHxS and PFOA concentrations in wells at the Eastern airfield boundary present a 'decreasing' trend in monitoring wells MW047 and MW052 (refer to **Table 21**). However, MW051 presented an 'increasing trend', with a historical maximum of 1,780 µg/L PFOS+PFHxS detected in this monitoring round.

While all four wells are located on the boundary, MW051 is located at the low point of the boundary and near the primary stormwater drainpipe that discharges to Rickabys Creek at SW009. Given that no local PFAS source has been identified (AECOM, 2022e), it is inferred that the impacts in MW051 are a result of surface water infiltration from the drainpipe. Additionally, the increase in concentrations coincide with the period of above average rainfall which occurred during this monitoring period (refer **Section 6.3**).

Table 21 Eastern airfield boundary

Location ID	Analyte	Historical Range	OMP Events (Current Period)	Mann-Kendall Trend	
		Min – Max (µg/L)	Min – Max (µg/L)	Trend	Confidence Factor
MW047	PFOS+PFHxS	11.2 – 22.6	1.11 – 14.0	Decreasing	99.7%
	PFOA	0.34 – 0.6	0.02 – 0.38	*Decreasing*	99.7%
MW050	PFOS+PFHxS	8.04 – 31.0	6.26 – 37.8	Stable	54.0%
	PFOA	0.25 – 0.9	0.13 – 0.99	Stable	69.4%
MW051	PFOS+PFHxS	51.4 – 473	333 – 1780	Increasing	97.7%
	PFOA	0.87 – 18.8	11.2 – 65.3	Increasing	98.6%
MW052	PFOS+PFHxS	24.1 – 43.0	1.53 – 22.1	Decreasing	99.4%
	PFOA	0.3 – 0.44	0.03 – 0.36	*Decreasing*	99.4%

n/s = not sampled

italics indicate low confidence in the Mann-Kendal trend analysis given concentrations are within 1 to 2 orders of magnitude of the LOR

8.3.5 Northern Site boundary adjacent FTF and AFCTA

The changes in PFOS+PFHxS and PFOA concentrations in wells on the northern boundary adjacent to the FTF and AFCTA present a general steady trend (refer to **Table 22**). The exception to this is PFOS+PFHxS and PFOA in MW107I and PFOS+PFHxS in MW053 which presented a 'probable increasing trend'. This trend was assessed in the Targeted Groundwater Investigation (AECOM, 2023b), where it was inferred that this probable increasing trend was a result of increased vertical migration of a local PFAS source in response to a period of increased rainfall.

Table 22 Northern Site boundary adjacent FTF and AFCTA

Location ID	Analyte	Historical Range	OMP Events (Current Period)	Mann-Kendall Trend	
		Min – Max (µg/L)	Min – Max (µg/L)	Trend	Confidence Factor
MW030	PFOS+PFHxS	3.12 – 5.03	1.03 – 5.00	Decreasing	97.7%
	PFOA	<LOR – 0.2	0.05 – 0.3	Stable	53.0%
MW053	PFOS+PFHxS	0.12 – 0.93	0.2 – 15.4	Probably Increasing	91.0%
	PFOA	<LOR – 0.09	0.04 – 0.56	*Increasing*	98.8%
MW054	PFOS+PFHxS	0.09 – 0.31	0.17 – 0.42	*Increasing*	99.4%
MW57	PFOS+PFHxS	0.78 – 1.03	0.75 – 1.33	Stable	46.0%
	PFOA	<LOR – 0.06	0.05 – 0.08	*Increasing*	99.7%
MW058	PFOS+PFHxS	1.86 – 9.34	2.36 – 11.7	No trend	69.4%
	PFOA	<LOR – 0.9	0.3 – 0.65	*Increasing*	96.4%
MW107I	PFOS+PFHxS	5.0 – 11.5	9.72 – 1,100	Probably increasing	91.0%
	PFOA	0.19 – 1.24	0.77 - 95	Probably increasing	91.0%
MW107D	PFOS+PFHxS	1.41 – 2.11	4.59 – 21.7	No trend	76.5%
	PFOA	0.06 – 0.07	0.16 – 2.07	No trend	86.4%
MW108	PFOS+PFHxS	0.37 – 0.83	0.48 – 1.5	Stable	50.0%

n/s = not sampled

italics indicate low confidence in the Mann-Kendal trend analysis given concentrations are within 1 to 2 orders of magnitude of the LOR

8.3.6 Site Boundary with Rickabys Creek

The changes in PFOS+PFHxS and PFOA concentrations in wells at the Site boundary with Rickabys Creek present a general steady trend (refer to **Table 23**).

Table 23 Site Boundary with Rickabys Creek

Location ID	Analyte	Historical Range	OMP Events (Current Period)	Mann-Kendall Trend	
		Min – Max (µg/L)	Min – Max (µg/L)	Trend	Confidence Factor
MW001	PFOS+PFHxS	0.1 – 0.13	0.1 – 0.14	Stable	58.0%
MW095	PFOS+PFHxS	0.07 – 0.18	0.09 – 0.12	Stable	39.3%
MW114	PFOS+PFHxS	0.06 – 0.15	0.1 – 0.17	No trend	81.5%

n/s = not sampled

italics indicate low confidence in the Mann-Kendal trend analysis given concentrations are within 1 to 2 orders of magnitude of the LOR

8.3.7 STP and Off-Site: Bakers Lagoon

The changes in PFOS+PFHxS and PFOA concentrations in wells at the STP and off-Site near Bakers Lagoon show a generally stable to decreasing trend, with the exception of MW109, which is showing a 'probable increasing trend' (refer to **Table 24**).

Table 24 STP and Off-Site: Bakers Lagoon

Location ID	Analyte	Historical Range	OMP Events (Current Period)	Mann-Kendall Trend	
		Min – Max (µg/L)	Min – Max (µg/L)	Trend	Confidence Factor
MW021	PFOS+PFHxS	9.74 – 15.2	4.33 – 7.02	Probably Decreasing	91.0%
	PFOA	0.42 – 0.55	0.21 – 0.4	*Probably Decreasing*	91.0%
MW022	PFOS+PFHxS	7.05 – 40.0	3.63 – 22.1	Probably Decreasing	91.0%
	PFOA	0.1 – 1.1	0.06 – 0.69	Stable	87.0%
MW023	PFOS+PFHxS	0.05 – 0.66	0.07 – 0.27	Stable	72.8%
MW097	PFOS+PFHxS	<LOR	<LOR – 0.01	No trend	76.4%
MW098	PFOS+PFHxS	<LOR	<LOR – 0.01	No trend	76.4%
MW109	PFOS+PFHxS	2.37 – 3.1	5.11 – 6.41	Probably Increasing	93.2%
	PFOA	0.07 – 0.09	0.12 – 0.2	No trend	86.4%
MW110	PFOS+PFHxS	0.36 – 0.55	2.11 – 2.46	No trend	50.0%

n/s = not sampled

italics indicate low confidence in the Mann-Kendal trend analysis given concentrations are within 1 to 2 orders of magnitude of the LOR

8.4 Surface Water Results

The surface water results from the monitoring period for PFOS+PFHxS and PFOA were compared to assessment criteria and are provided in **Figures F10 to Figure F14** (**Appendix A**. Mann-Kendall statistical analysis was not undertaken for surface water locations due to the variable nature of the results being unsuitable for making monotonic trend assessments.

A summary of changes to the nature and extent of surface water contamination is provided below.

8.4.1 On-Site Management Area

Concentrations of PFAS within on-Site monitoring locations remained generally within historical ranges throughout the monitoring period.

8.4.2 Off-Site Management Area and Areas outside Management Area

Concentrations of PFAS in surface water were generally within historical ranges, with increases reported following elevated rainfall periods in 2021 and 2022.

It is noted that the PFAS concentrations in off-Site monitoring locations remain an order of magnitude below on-Site concentrations.

8.4.3 Summary of Surface Water Results

The nature and extent of the PFAS impacts in surface water were generally similar to the 2020 AIR with the exception of some localised increases particularly in the vicinity of known source areas, with highest concentrations reported in on-Site locations at SW001 and SW002. Off-Site surface water PFAS impacts have been noted to increase during the current monitoring period, particularly following recent prolonged periods of elevated rainfall. This may be also attributable for the reported PFAS concentrations in off-Site groundwater as described above.

There were first-time detects (for PFOA) and new maximum (for PFOS+PFHxS) reported at SW018 located down-gradient of SW009 in Rickabys Creek, where the creek discharges to the Hawkesbury River. The location further down gradient of SW018 is SW030 located in the Hawkesbury River which reported lower concentrations of PFOS+PFHxS. New maximum PFOS+PFHxS concentrations were

also reported at SW005 and SW037, located within the on-Site Management Area. These changes in surface water contamination distribution are likely to be attributed to a number of factors including increased PFAS discharge from the Site resulting from increased rainfall observed, tidal fluctuations in the Hawkesbury River, mobilization of PFAS from up gradient sources and increased surface water volumes within the wider Hawkesbury River catchment. However, as discussed in **Section 6.1.4** and **Section 6.3**, the increase in PFAS concentrations observed in SW018 are likely in response to increased PFAS discharge from the Site.

Based on the concentrations of PFAS in surface water there is no significant change to the risk to human health and the environment. The frequency and locations of sampling remains sufficient.

8.5 PFAS Temporal Trend - Surface Water

Temporal trend graphs were created (using the Defence [2022] PFAS OMP AIR Guidance) for PFOS+PFHxS and PFOA concentrations in surface water associated with the Management Areas.

A summary of temporal data trend graphs by area are presented in **Table 25** below. These graphs are presented in **Appendix D**.

Table 25 Temporal surface water trend graphs by area

Graph ID	Area	Surface Water Locations
G15, G17	North of the Site (on-Site)	SW001, SW002, SW003, SW037
G16, G18	North of the Site (off-Site)	SW015, SW016
G19, G21	East of the Site (on-Site)	SW005, SW007, SW008, SW009, SW011, SW013, SW014
G20, G22	East of the Site (off-Site)	SW018, SW019, SW020, SW023, SW030, SW032
G23, G24	West of the Site (On-Site and off-Site)	SW022, SW024, SW035

* SW020, SW024, SW030, SW035 are located outside the off-Site Management Area

A summary of surface water PFOS+PFHxS and PFOA concentrations for the select locations (including historical ranges and concentrations from the OMP events during the monitoring period) are discussed through temporal trend reviews based on the different regions within the three Management Areas in the following sub-sections.

Note that Mann-Kendall analysis was not used to assess the trends in PFAS concentrations in surface water, given that variables such as rainfall, which influence PFAS concentrations are not factored into the analysis.

Temporal trend analysis was undertaken for locations which were sampled in the current monitoring period. Locations with PFAS concentrations consistently below LOR were excluded. Wet weather sampling event data (AECOM, 2021b, 2022a, 2022c and 2022d) was included in the temporal figures. This is distinguishable on the graphs by multiple analytical results (often also presenting significant changes to concentrations) for a given location within a short time frame. The locations with wet weather sampling event data are SW002, SW009 and SW016.

Additionally, the 30-day average daily rainfall total (in mm) has been included on the temporal trend graphs to allow for assessment of the influence of rainfall on the recorded surface water contamination levels.

8.5.1 Temporal Trend – North of the Site

The PFOS+PFHxS and PFOA concentrations in surface water within the on-Site Management Area in the north of the Site generally remained within historic ranges (refer to temporal trend **Graphs G15** to **G18** in **Appendix D**).

An increase in PFAS concentrations in surface water were reported in the sampling events completed following the March 2022 rainfall period, which is consistent with the CSM regarding the mobilisation of PFAS following significant rainfall events as discussed in **Section 6.1.1** and **Section 6.3**. Note that the

concentrations of PFOS+PFHxS in off-Site monitoring location SW016 increased by approximately two orders of magnitude from 0.1 µg/l to 1.0 µg/l in the period immediately following the rainfall.

These concentration increases were investigated further as part of the multi-event mass flux studies (AECOM, 2021b, 2022a, 2022c and 2022d) to assess PFAS mass discharge estimates.

8.5.2 Temporal Trend – East of the Site

The PFOS+PFHxS and PFOA concentrations in surface water on the east of the Site remained generally within historic ranges during the monitoring period. Note that an increase in concentrations were reported following the rainfall events in 2021 and 2022, which brought PFAS concentrations up to the same order of magnitude as those reported in 2017.

Additionally, an increase in PFAS concentrations were also reported in off-Site locations following rainfall events in 2021 and 2022, resulting in a number of new maximums in PFAS concentrations reported to the east of the Site, at monitoring locations SW018, SW020, SW023 and SW030. Given the outcomes of the mass flux study (refer **Section 6.1.1**), and as a result of the mechanisms described in **Section 6.3**, the increases in PFAS concentration observed at SW023 and SW018 in Rickabys Creek are likely to be attributed to increased PFAS discharge from the area of SW009 during the significant preceding rainfall events (refer **Table 6**). AECOM considers that, conceptually, this response would be anticipated given the nature of PFAS in general and the Site. Note that the PFAS concentrations at these locations retuned to baseline concentrations following these isolated increases in response to significant rainfall.

Additionally, monitoring locations SW019 and SW020 located in Rickabys Creek upgradient of the Site displayed a similar response to significant rainfall events, with PFAS concentrations increasing in response to these events. This indicates that the observed response of increasing PFAS concentrations following significant rainfall events occurs region wide. Additionally, it demonstrates that upgradient PFAS sources are contributing to PFAS impacts observed in Rickabys Creek.

Note that off-Site PFAS concentrations in surface water remain generally an order of magnitude lower than on-Site.

Refer to temporal trend **Graphs G19** to **G22** in **Appendix D**.

8.5.3 Temporal Trend – West of the Site

Surface water west of the Site was characterised by three off-Site sampling locations, SW022, SW024 and SW035. At these locations PFOA concentrations remained at or near the LOR during the monitoring period.

An increase in PFOS+PFHxS concentrations were reported following both the 2021 and 2022 rainfall periods (refer to temporal trend **Graphs G23** and **G24** in **Appendix D**). This response is similar to that discussed in **Section 8.5.2**, where upgradient monitoring locations experienced an increase in PFAS concentrations in response to significant rainfall events prior to the May 2021 and May 2022 sampling events. This indicates that the significant rainfall events likely to have mobilised PFAS contamination from PFAS source areas upgradient of the Site. Note that these concentrations are similar to PFOS+PFHxS concentrations observed to the north and west of the Site.

8.6 Sediment Results

The sediment results for the monitoring period for PFOS+PFHxS and PFOA are presented spatially on **Figures F15 to Figure F19** in **Appendix A**.

A summary of changes to the nature and extent of sediment contamination is provided in the sub-sections below.

8.6.1 Analytical Results

- First-time detections were reported at four locations throughout the monitoring period (SD016, SD019, SD020, SD024)
    - SD019 and SD020 are located along Rickabys Creek off-Site south of the Site
    - SD016 located off-Site north of the Site, towards Bakers Lagoon

  - SD024 located along the Hawkesbury River off-Site northwest of the Site.

- No first-time detections were reported following the May 2022 sampling event as all sampled locations reported concentrations above LOR for key PFAS compounds PFOA and PFOS+PFHxS, which were within the historic sampling data set
- 13 of 16 sediment sampling locations reported new historic maximum concentrations of PFAS during the monitoring period. Notable increases include:
  - PFOS+PFHxS at SD022 detected at 0.01 mg/kg in November 2022 and 0.005 mg/kg in November 2021 (previous maximum of 0.003 mg/kg in May 2020)
  - PFOA at SD014 detected at 0.008 mg/kg in May 2021, an order of magnitude above the previous maximum in July 2017
  - PFOS+PFHxS at SD020 detected at 0.006 mg/kg in May 2021, previously <LOR.
- 12 of 16 sediment sampling locations reported new historic minimum concentrations of PFAS during the monitoring period
- Despite fluctuations at individual locations, concentrations of PFAS in sediment samples were generally within historical ranges in the samples collected during the monitoring period.

8.6.2 Temporal Trends

Temporal trend graphs were created (using the Defence [2022] PFAS OMP AIR Guidance) for PFOS+PFHxS and PFOA concentrations in sediments associated with Management Areas.

A summary of temporal data trend graphs by area are presented in **Table 26** below. These graphs are presented in **Appendix D**.

Table 26 Temporal sediment trend graphs by area

Graph ID	Area	Sediment Locations
G25, G26	North of the Site (on-Site and off-Site)	SD001, SD002, SD003, SD015, SD016, SD032
G27, G28	East of the Site (on-Site and off-Site)	SD005, SD007, SD008, SD009, SD011, SD013, SD014, SD018, SD019, SD020, SD023, SD030
G29, G30	West of the Site (on-Site and off-Site)	SD022, SD024, SD030, SD035

* SD020, SD024, SD030, SD035 are located outside the off-Site Management Area

A summary of sediment PFOS+PFHxS and PFOA concentrations for the select locations (including historical ranges and concentrations from the OMP events during the monitoring period) are discussed through temporal trend reviews based on the different regions within the three Management Areas in the following sub-sections.

Note that Mann-Kendall analysis was not used to assess the trends in PFAS concentrations in sediments, given that variables such as rainfall, which influence PFAS concentrations are not factored into the analysis.

Temporal trend analysis was undertaken for locations which were sampled in the current monitoring period. Locations with PFAS concentrations consistently below LOR were excluded.

Additionally, the 30-day average daily rainfall total (in mm) has been included on the temporal trend graphs to allow for assessment of the influence of rainfall on PFAS concentrations.

8.6.2.1 Temporal Trend – North of the Site

Sediment concentrations within the “north of the Site” area appeared to remain relatively stable throughout the monitoring period, with few spikes observed across all included locations. There is no obvious influence of rainfall on the concentrations in this area.

8.6.2.2 Temporal Trend – East of the Site

Similar to the surface water samples in this area, the PFOS+PFHxS and PFOA concentrations in sediment on the east of the Site remained generally within historic ranges during the monitoring period. Note that an increase in concentrations were reported following the rainfall events in 2021 and 2022, which brought PFAS concentrations up to the same order of magnitude as those reported in 2017. The highest concentrations in this area were within on-Site locations.

8.6.2.3 Temporal Trend – West of the Site

Sediment results west of the Site were characterised by three off-Site sampling locations, SD022, SD024 and SD035. At these locations PFOA concentrations remained at or near the LOR during the monitoring period. PFOS+PFHxS concentrations were relatively stable with observations from May 2020. An increase in concentrations was reported in SD022 in October 2022, though this was followed by reduced concentration readings, and an increasing concentration trend does not appear to be forming.

8.6.3 Summary of Sediment Results

The concentrations of PFAS generally remained within historical ranges over the monitoring period. The highest PFAS concentrations in sediment samples were at SD001 (located within the FFTG).

There were new detects of PFAS in sediment in off-Site locations to the east, south, north and north west in 2021.

The changes in the distribution of PFAS in sediments at and surrounding the Site are attributed to the increased rainfall observed at the Site during the monitoring period.

Based on the concentrations of PFAS in sediment there is no significant change to the risk to human health and the environment. The frequency and locations of sampling remains sufficient.

9.0 Conceptual Site Model

The Conceptual Site Model (CSM) was developed during the investigation stages (AECOM, 2018a) and summarised in the OMP (Defence, 2019a). The CSM summarises the linkages between PFAS sources, exposure pathways and receptors.

The OMP monitoring between December 2020 and June 2023 has provided additional data to further understand the changing conditions of the PFAS concentrations in groundwater and surface water. Key observations include:

- PFAS concentrations were generally within historical ranges
- Mann-Kendall trend analysis of groundwater monitoring data from different locations indicated variable trends, including stable, decreasing, increasing or inconclusive trends. New maximum concentrations and new detects were reported at selected locations and the changes are inferred to be potentially associated with increased rainfall during the monitoring period
- Despite new maximums and new detects, the inferred PFAS transport mechanisms and the groundwater, surface water and sediment concentrations are generally similar to those reported in AECOM (2018a) and AECOM (2021b). However, some localised increases were noted which are inconsistent with the CSM, in particular at MW107I and MW051
- While the increase in PFAS concentrations in groundwater detected at MW107I and nearby wells have increased the estimates of the mass flux of PFAS discharged off-Site via groundwater (AECOM, 2023a), surface water is still the largest contributor to PFAS mass discharge off-Site, and this does not alter the conceptual understanding of PFAS migration pathways for the Site
- PFAS concentrations in groundwater at the FFTG appear to be decreasing following soil remediation activities in this area (refer **Section 6.1.3**)
- In the area to the north of Bakers Lagoon, substantial (post-flooding) gully erosion affected the proposed surface water and sediment sample locations (SW081/SD081) which were unable to be sampled due to ongoing council rectification works. Additionally, it is not known what, if any, connection between Bakers Lagoon and the Hawkesbury River will be established post-rectification works. As such, no updates to the CSM in this area are proposed until a permanent engineering solution is implemented and can be understood in the context of surface water migration from Bakers Lagoon.

The PFAS remedial works and management planning activities continue to be undertaken at the Site per the SFARP principles, as summarised in **Section 6.1**. These remedial and management works will continue be updated in the following Interpretive Reports.

Overall, data presented in this report indicates that the PFAS sources, pathways and receptors has not significantly change the understanding of the CSM. Future monitoring will continue to contribute to an evaluation of any potential changes to the CSM.

10.0 Discussion

10.1 Risk Profile Review

The data collected during OMP monitoring between November 2019 and June 2023 indicates that the risk profile to human health receptors within the Management Area remains generally unchanged since the publication of the HHRA (AECOM, 2018b). A potential exception to this assessment is the evidently localised PFAS impacts identified on the north west boundary of the Site which is scheduled to be remediated in 2024. This is based on the following assessment of the OMP data:

10.1.1 Groundwater

- **Nature and Extent of Groundwater PFAS Impacts:** The nature and extent of PFAS concentrations in groundwater were generally similar to the 2020 AIR (AECOM, 2021d) with the highest concentrations reported at MW107I (northern Site boundary near the FTF) and MW051 (Area used by Fitters) in groundwater within the CFA.
- **Areas of Groundwater PFAS Concentration change:** The periods of increased rainfall which occurred during the monitoring period appear to have resulted in some localised increases in PFAS concentrations in groundwater, particularly in MW107I and MW051.
    - New detects were identified across all source areas
    - Higher PFAS concentrations were reported on the northern boundary of the Site at MW107I. These increases are inferred to be in response to high rainfall mobilising PFAS from the soil at this location. This area has been identified as a localised PFAS source and therefore, remediation activities are planned for this area which are scheduled to commence in late 2023 to ensure this PFAS does not leave the Site boundary
    - MW143 and MW144 were installed to replace MW098 and MW099 which were destroyed during flooding events in March 2021. The new wells were installed along Cupitts Lane south of Cooley Creek within the same hydrogeological unit as the destroyed wells. MW143 and MW144 were sampled for the first time in May 2023, reporting PFAS concentrations an order of magnitude higher than was previously reported at MW098 and MW099. The surface water concentrations nearby these wells were similar, and it is possible the PFAS detects in groundwater are likely to be a result of surface water transport during the flood events. The concentrations here will be monitored for changes at the next sampling event.
    - Despite the increases in PFAS impacts to groundwater described above, it is inferred that there is no overall change to the risk to human health and the environment
    - The frequency and locations of groundwater sampling remains sufficient. However, it is noted that further additional monitoring will be undertaken at the northern Site boundary near MW107I as part of remediation works proposed in this area.

10.1.2 Surface water

Areas of Surface water PFAS Concentration Change: The nature and extent of the PFAS impacts in surface water are generally similar to the 2020 AIR with highest concentrations reported at SW001 and SW002.

- There were first-time detects at SW018, located in Rickabys Creek downgradient of SW009 where the creek discharges to the Hawkesbury River were observed during the monitoring period. Detects at this location were recorded in the May 2021 and May 2022 events following significant rainfall events (refer Section 6.3). Corresponding increases in PFAS concentrations were detected at SW023 in Rickabys Creek in the same events. These changes in surface water contamination distribution are likely to be attributed to the increased rainfall observed at the Site during the monitoring period resulting in surface transport of PFAS from the known source areas. However, the detects are not considered to change the overall risk profile of the Site
- New maximum PFOS+PFHxS concentrations at SW005 and SW037 were also reported, which are located within the on-Site management area

- Based on the concentrations of PFAS in surface water there is no significant change to the risk to human health and the environment
- The frequency and locations of sampling remains sufficient.

10.1.3 Sediments

The highest PFAS concentrations in sediment samples in the monitoring period were at SD001 (located within the FFTG), however it is noted that these concentrations were within the range of historical concentrations at this location.

- There were new detects of PFAS in sediment in May 2021 off-Site at SD020 (PFOS+PFHxS) and SD016 and SD019 (PFOA). New maximum concentrations were reported in selected location in May 2021 but then subsequently decreased in November 2021. New maximum concentrations of PFOS and PFOS+PFHxS were reported in November 2021 include SD005, SD007, and SD019
- Based on the concentrations of PFAS in sediment there is no significant change to the risk to human health and the environment
- The frequency and locations of sampling remains sufficient.

Overall, it appears that that increased rainfall and flooding events during the monitoring period has influenced the extent and fluctuations in concentrations of PFAS in perched water, groundwater, surface water and sediment.

While there have been localised decreases and increases in PFAS concentrations in groundwater, surface water and sediment, there is currently no evidence that the overarching risk profile has changed profile based on the current land use within the Management Area.

PFAS exposure to off-Site land users within the off-Site Management Area is currently managed through New South Wales (NSW) Government Precautionary Advice by the NSW Environment Protection Authority (EPA).

Based on the data, it is considered that the conclusions made in the HHRA (AECOM, 2018b) still apply.

10.2 Assessment of current OMP

Based on the above review of the data collected during the current monitoring period, there are no significant changes to the understanding of the nature, extent or risks associated with PFAS at the Site and surrounding areas, or the need for monitoring of additional media. It is also understood that no significant OMP updates are required arising from stakeholder engagement or changes in land use.

Based on this, there are no triggers to the requirement of a review of the OMP (Defence, 2019a). However, since the development of the OMP, the following updated guidance has been published and adopted, and should be included in the next revision of the OMP:

- Recreational water use (NHMRC [2019], PFAS Recreational Water guidelines)
- Groundwater and surface water ecological guidelines (HEPA [2020], PFAS NEMP freshwater 99% species protection).

Additionally, the revised OMP will also include the recommended changes to the sampling locations, due to access restrictions, damaged monitoring wells or wells that could not be located. These additional recommendations are provided separate to this report.

11.0 Conclusions

Groundwater, surface water and sediment sampling was completed in general accordance with the SAQP (AECOM, 2023d) and to meet the objectives of the OMP (Defence, 2019a) between December 2020 and June 2023.

- Overall, the concentrations of PFAS in groundwater, surface water and sediment were generally consistent with the concentrations reported in the 2020 AIR with the exception of new maximums and new detects at selected locations likely attributed to significant rainfall events during the monitoring period
- Concentrations of PFAS in groundwater have been observed to decrease in the primary PFAS source area at the FFTG, while localised increases have been detected on-Site. The increase in PFAS concentrations detected on the northern boundary, which are inferred to be in response to climatic conditions mobilising PFAS impacts from a suspected local source (AECOM 2023a), may have the potential to increase the risk profile from PFAS impacts present in groundwater in this area. Therefore, future remediation activities have been nominated for this area as part of the Base Wide RAP (AECOM, 2023b)
- The groundwater plume extents are generally consistent with the representation presented in the 2020 AIR, with the exception of an apparent extension to the low-level concentration plume in the north. This northern extension in the plume is driven by the first-time detects in the newly installed monitoring wells MW143 and MW144. However, this apparent plume extension is unable to be confirmed due to the absence of sampling data from MW119 and MW120, located between the northern extent of the plume and the boundary of the Site. MW119 and MW120 are located on private property and permission to access was unable to be attained. Remediation on base is currently under review.
- Elevated PFAS concentrations were detected in Rickabys Creek at SW018 and SW023 following significant rainfall events however, this is not considered to change the overall risk profile of the Site, given there is no change to the source, receptor and pathways. In general, surface water concentrations were similar to the concentrations reported in the 2020 AIR
- The CSM was reviewed, and based on the results presented within this report, no changes were identified to source, pathway or receptors at the Site and within the Management Area
- Based on the data collected during the monitoring period, no changes to the risk profile were made, and no triggers have been identified which would require a review of the OMP. It is noted that the potential PFAS exposure to off-Site land users within the off-Site Management Area is currently managed through NSW Government Precautionary Advice by the NSW Environment Protection Authority.

12.0 References

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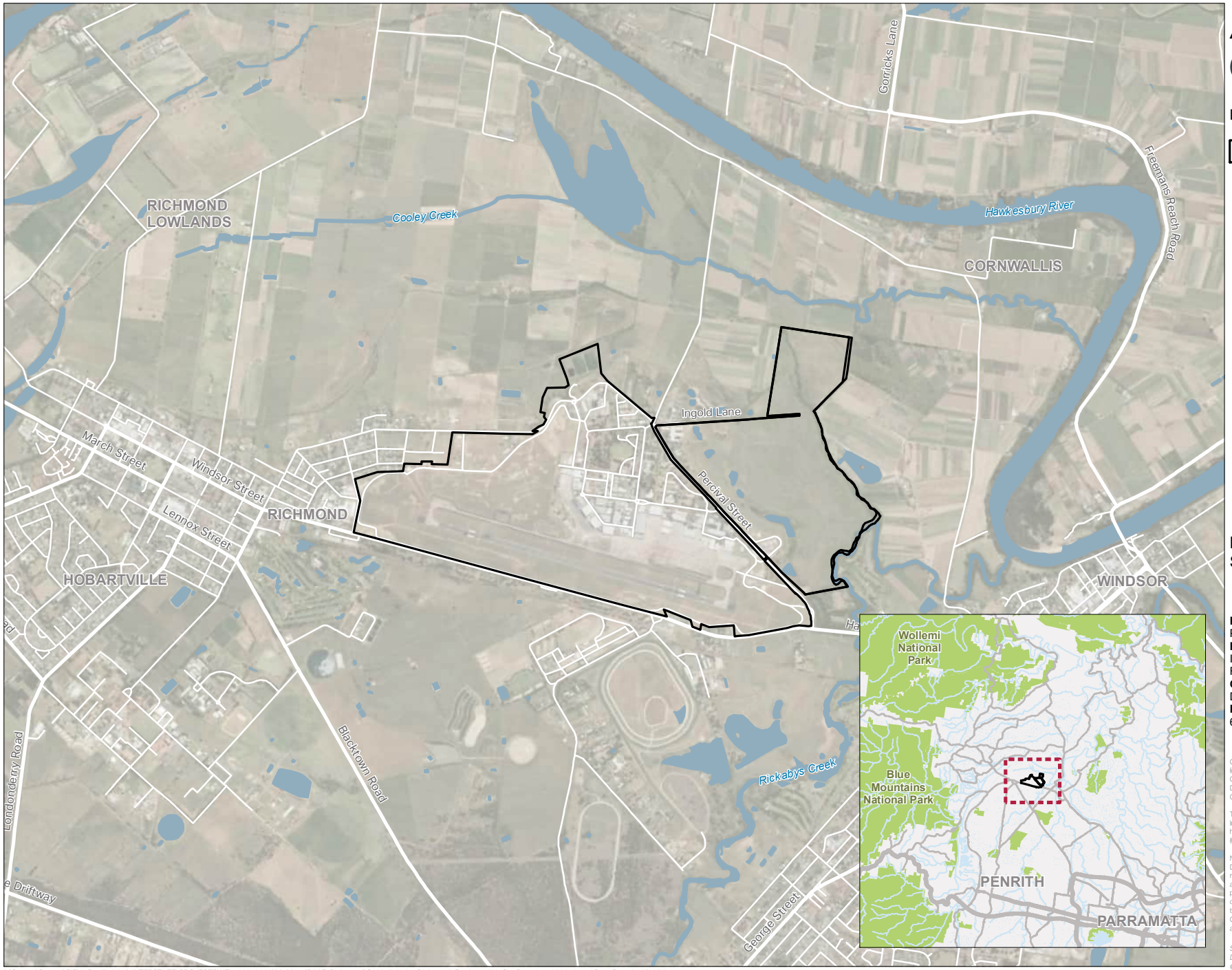
Appendix A

Figures



AECOM

N

0 250 500 m

Legend

Defence Site Boundary

FIGURE F1:
SITE OVERVIEW

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023 - RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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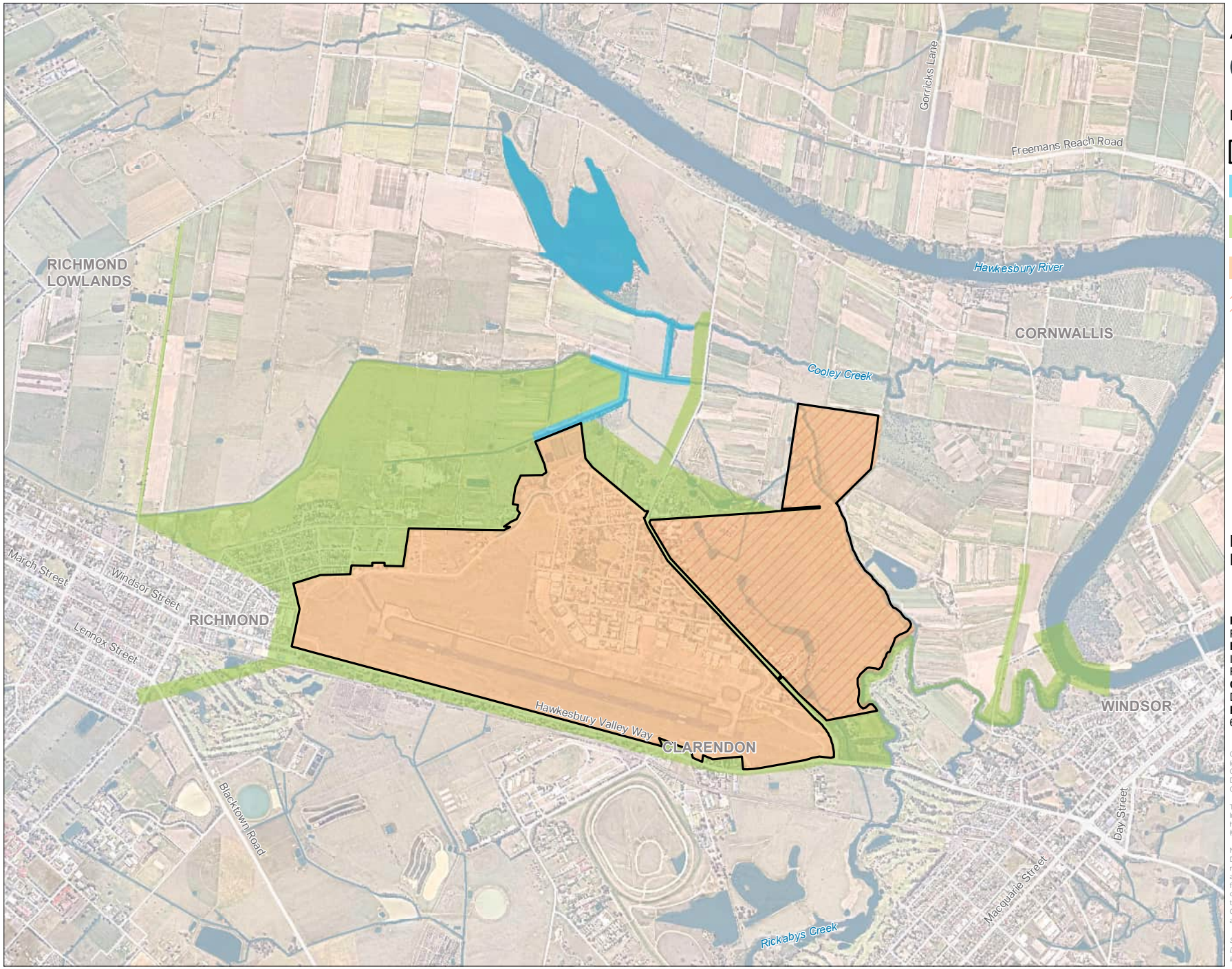

AECOM

N

0 250 500 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

FIGURE F2:
MANAGEMENT AREAS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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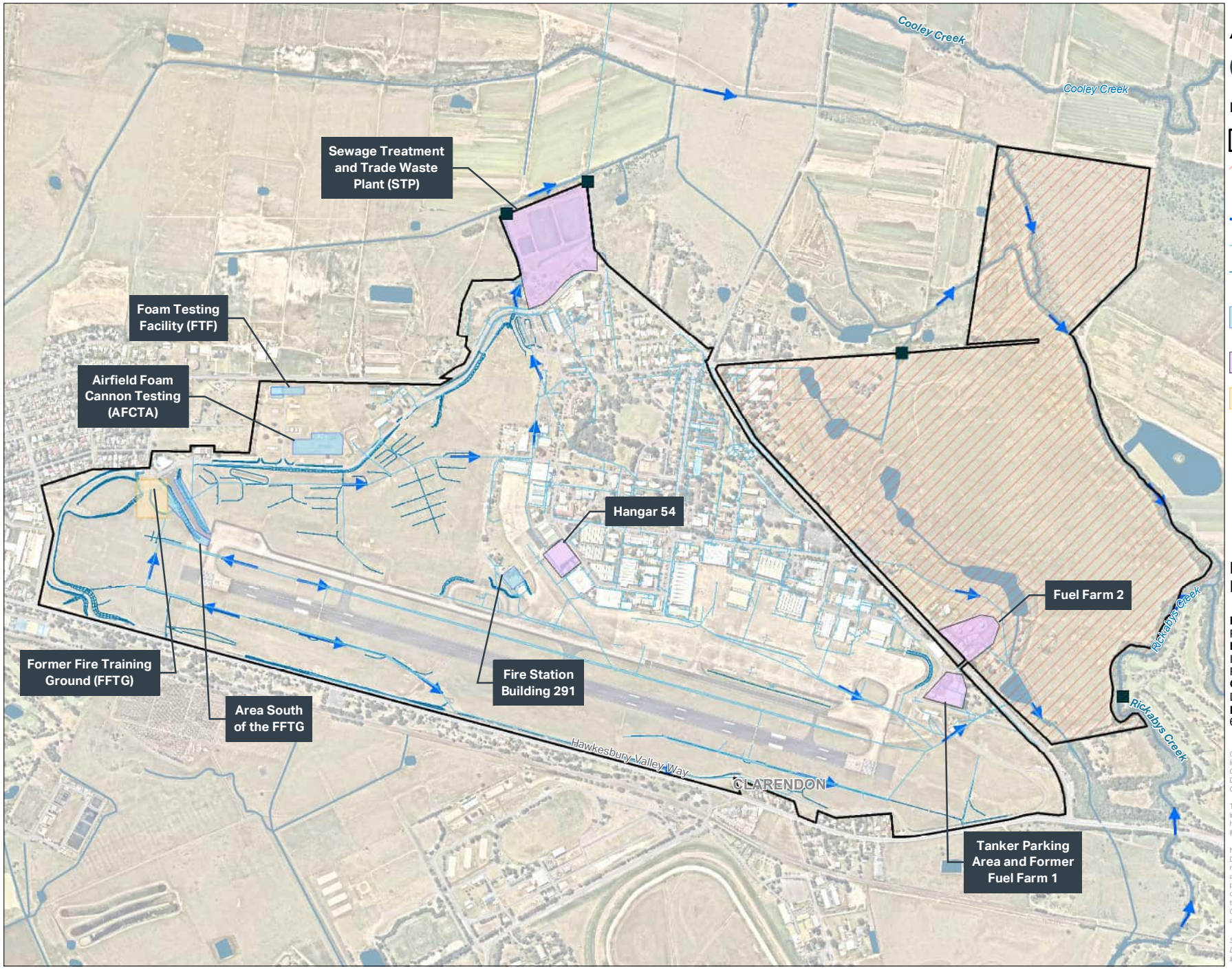

AECOM

N

0 250 500 m

Legend

- Defence Site Boundary
- Rickabys Drop Zone
- Off-site Discharge Point
- Drainage Flow Direction
- Stormwater Line
- Drainage Swale/Line
- AFFF Source Area to be Remediated (AECOM, 2023a)
- AFFF Testing Area
- Remediated AFFF Source Area (AECOM, 2020a)

FIGURE F3:
PFAS SOURCE AREAS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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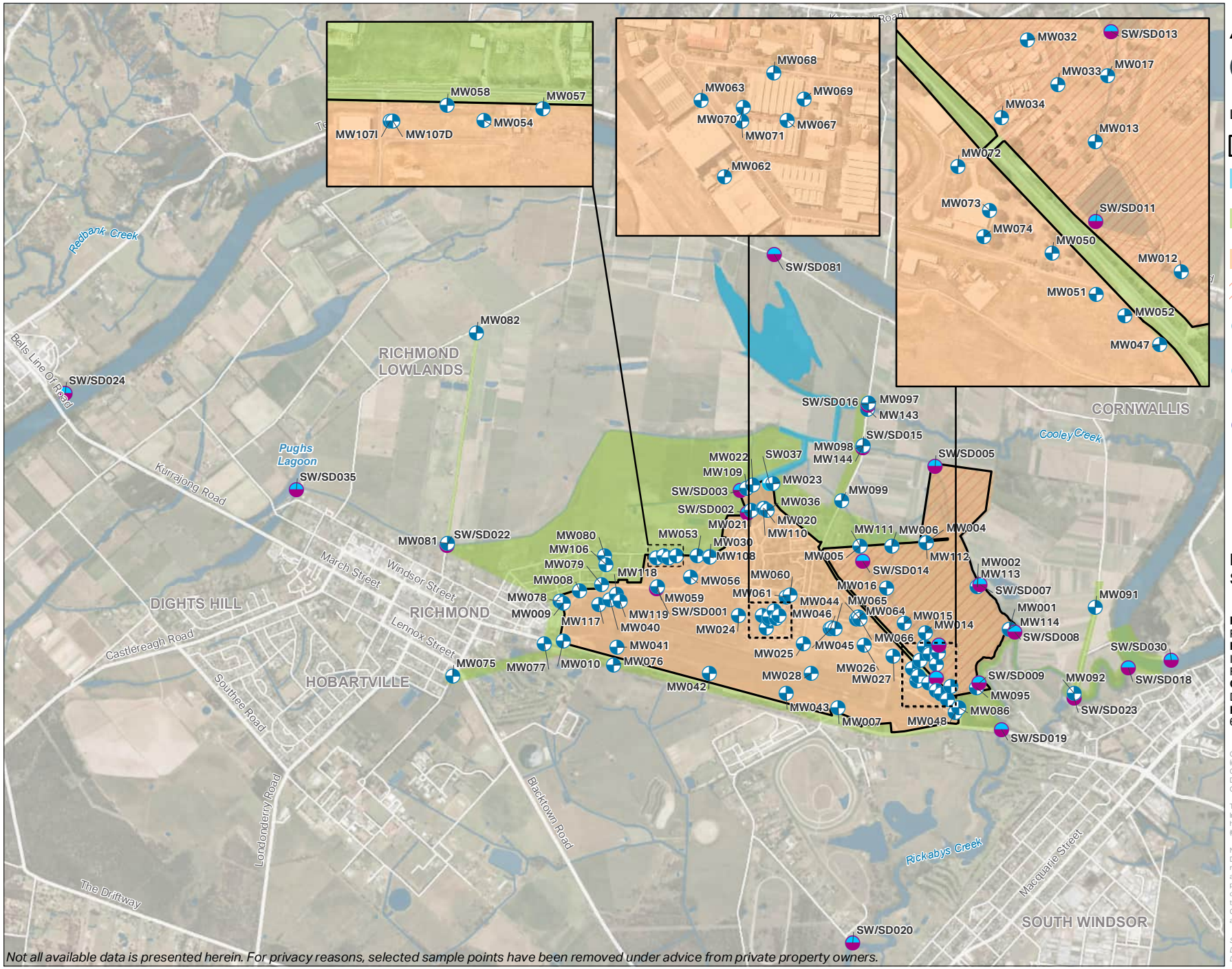

FIGURE F4:
SAMPLE LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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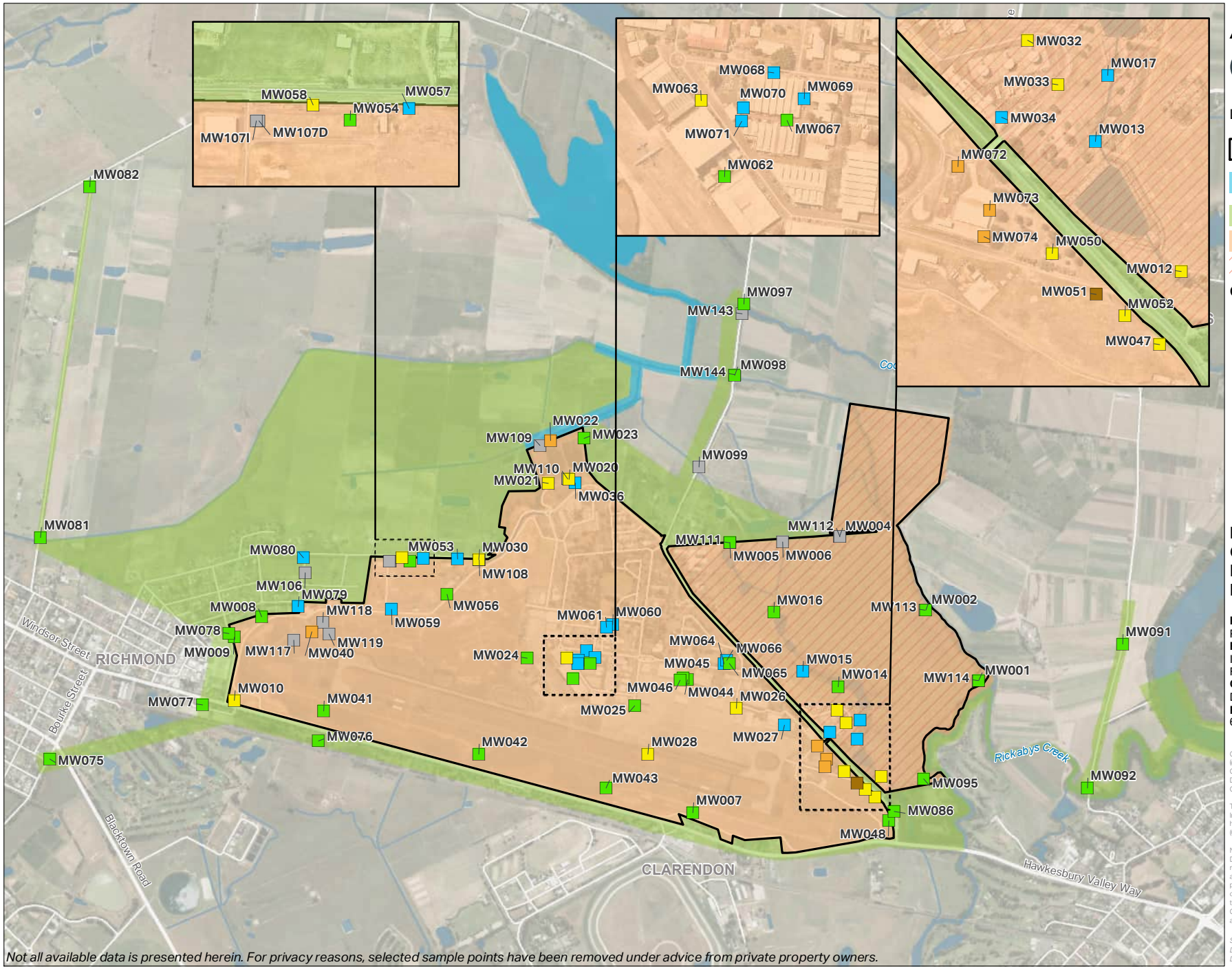

AECOM

N

0 200 400 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Groundwater - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F5A:
GROUNDWATER RESULTS
PFOA
MAY 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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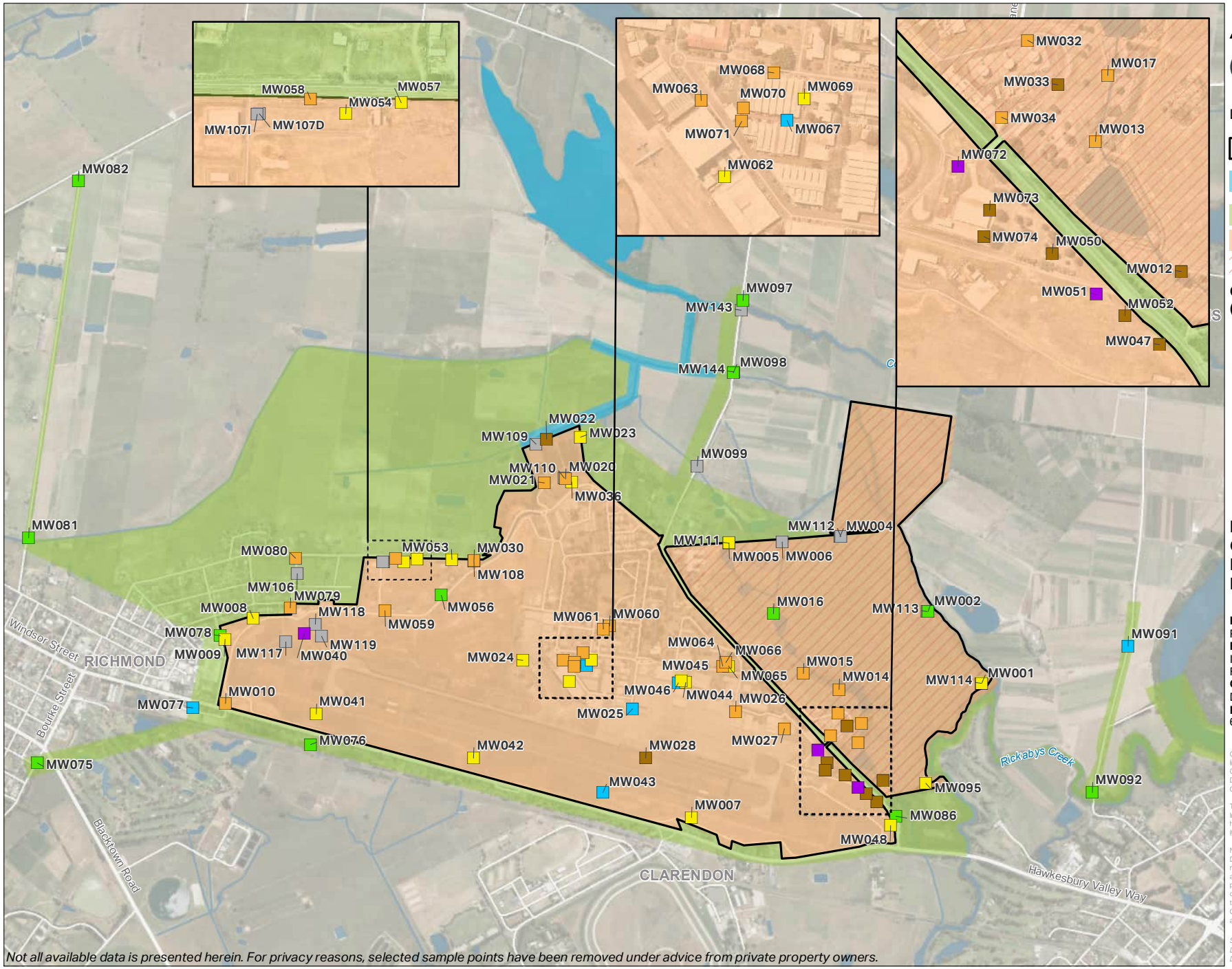

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AECOM

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Groundwater - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 1 - 10
- > 0.07 - 1
- Limit of Reporting - 0.07
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F5B:
GROUNDWATER RESULTS
PFOS + PFHXS
MAY 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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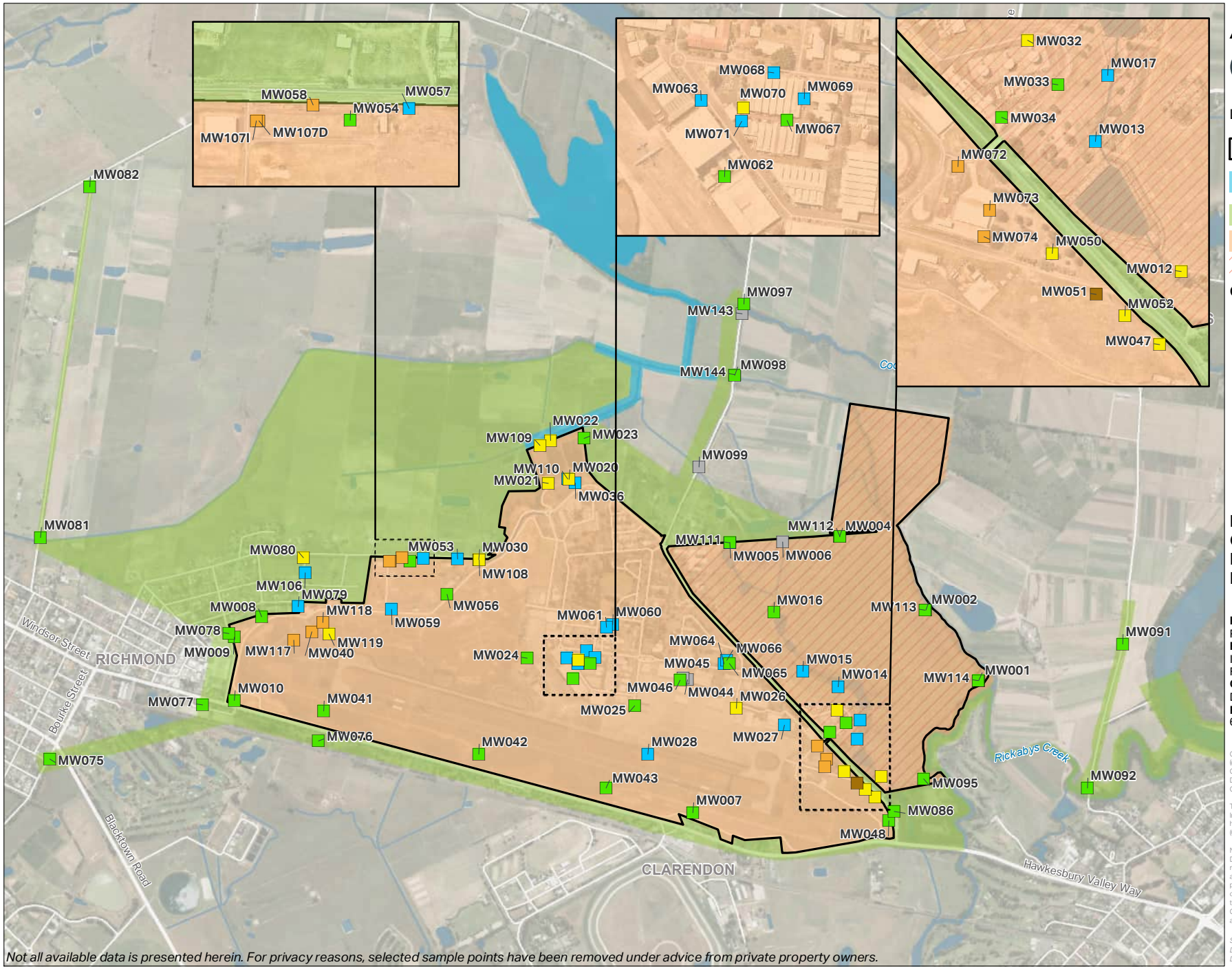

FIGURE F6A:
GROUNDWATER RESULTS
PFOA
NOVEMBER 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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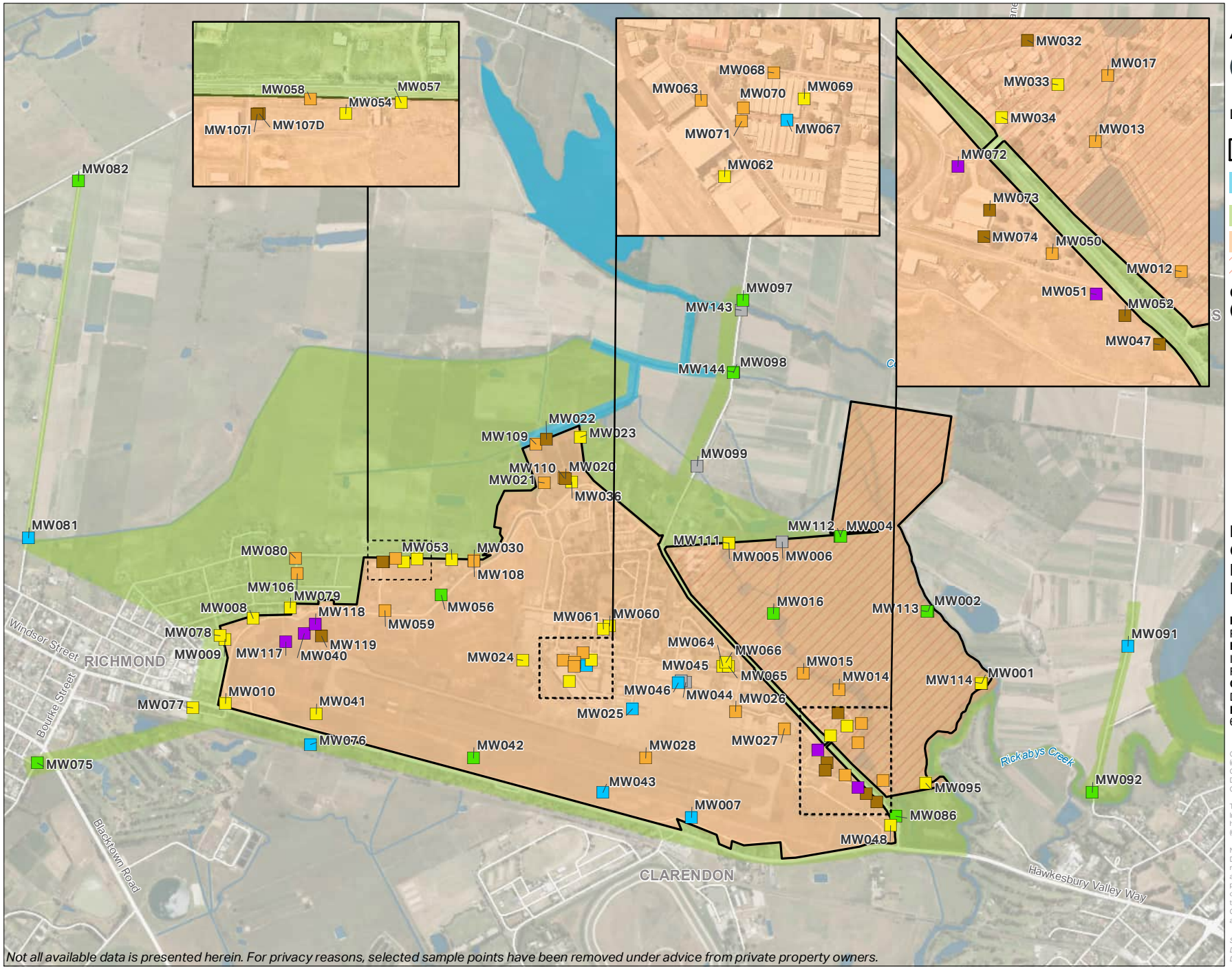

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AECOM

N

0 200 400 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Groundwater - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 1 - 10
- > 0.07 - 1
- Limit of Reporting - 0.07
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F6B:
GROUNDWATER RESULTS
PFOS + PFHXS
NOVEMBER 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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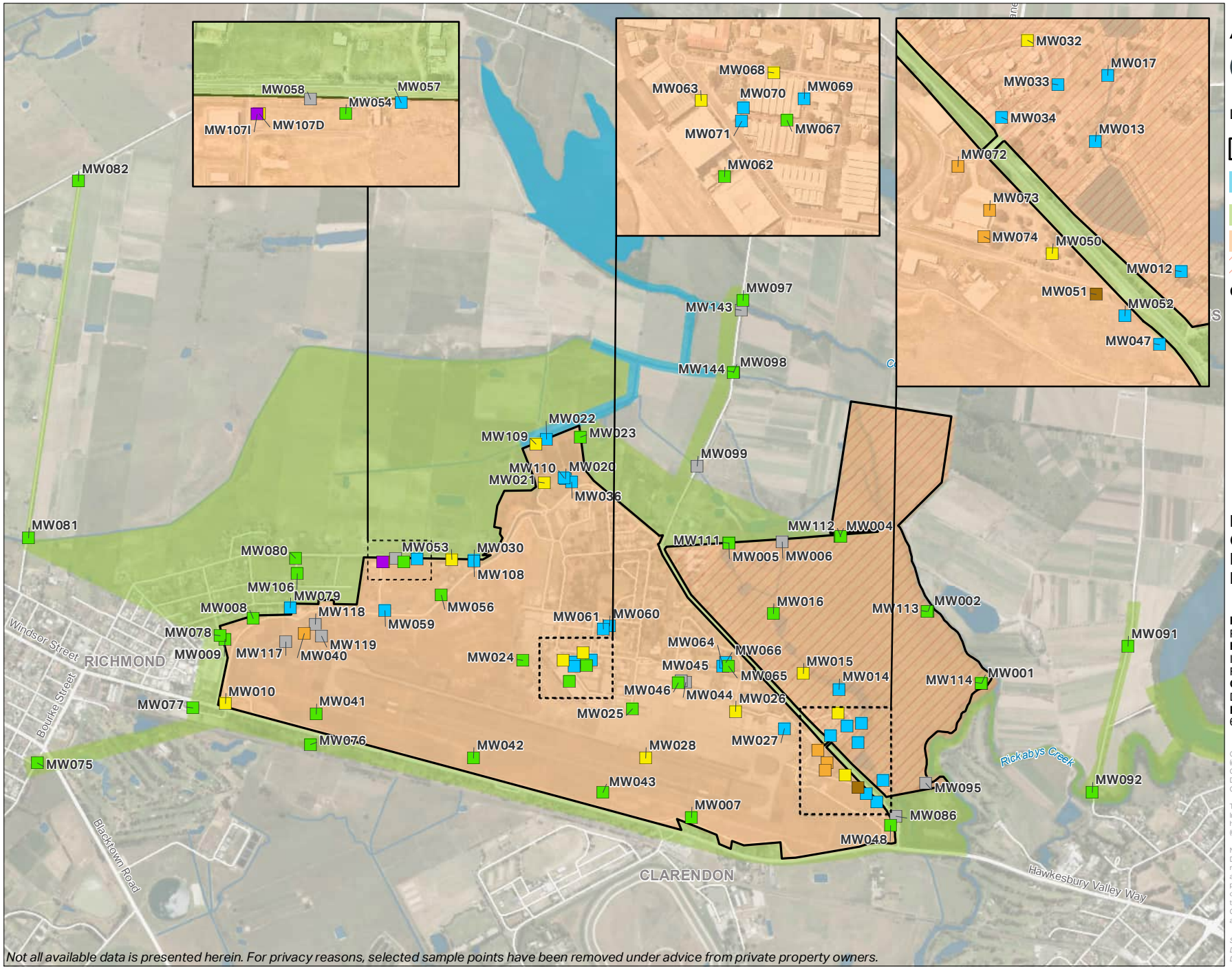

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AECOM

N

0 200 400 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management
- Onsite Management
- Rickabys Drop Zone

Groundwater - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F7A:
GROUNDWATER RESULTS
PFOA
MAY 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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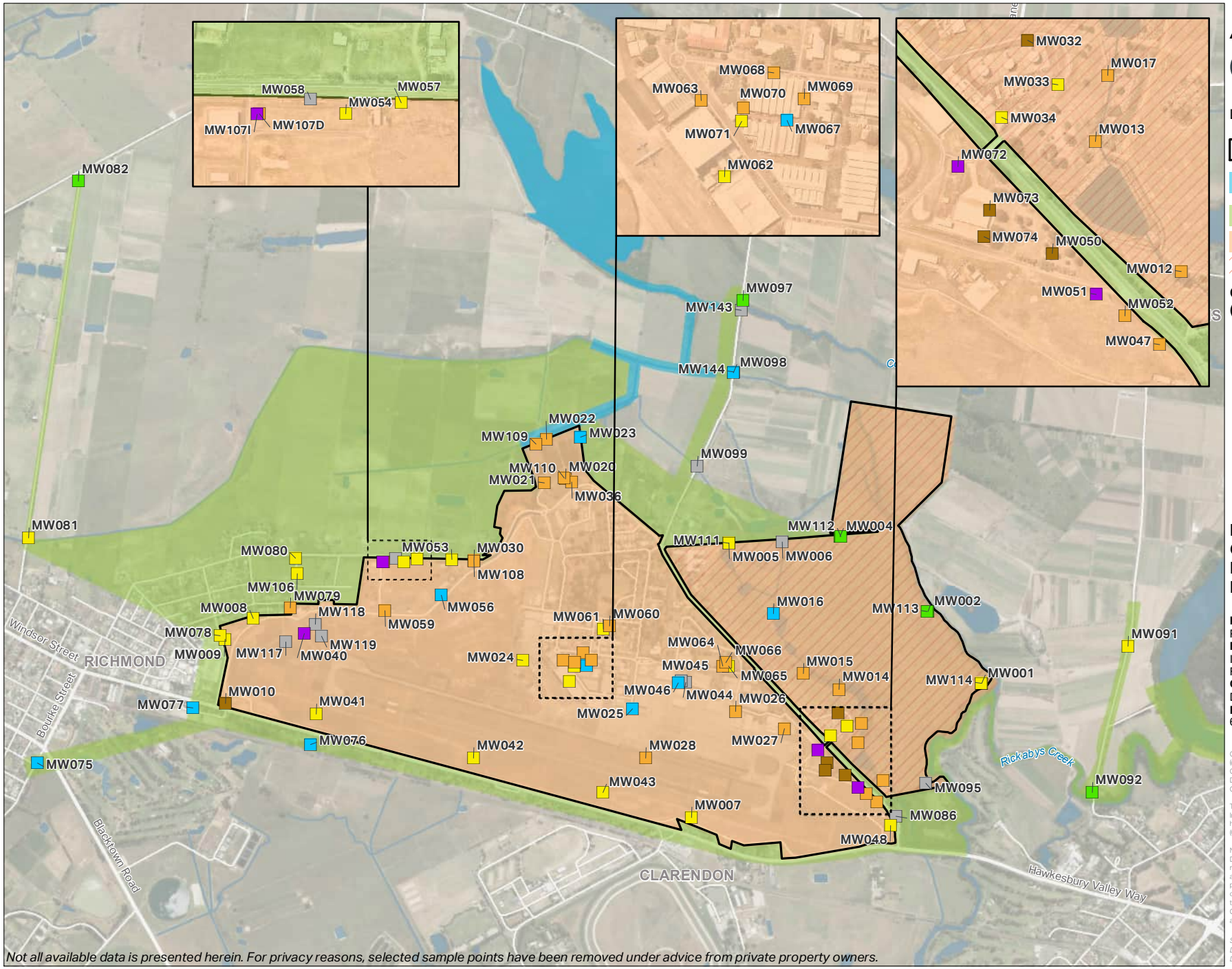

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AECOM

N

0 200 400 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Groundwater - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 1 - 10
- > 0.07 - 1
- Limit of Reporting - 0.07
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F7B:
GROUNDWATER RESULTS
PFOS + PFHXS
MAY 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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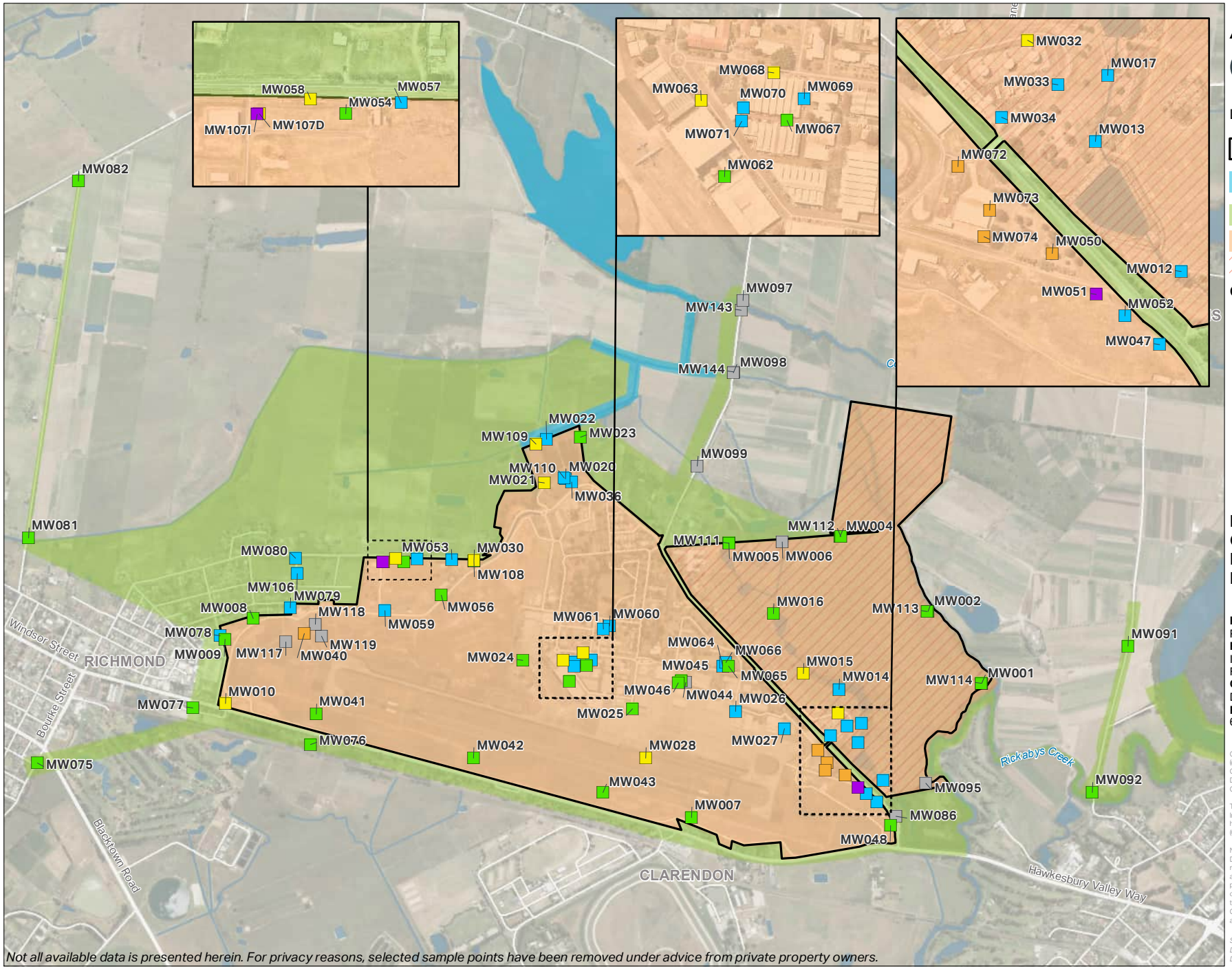

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AECOM

N

0 200 400 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management
- Onsite Management
- Rickabys Drop Zone

Groundwater - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F8A:
GROUNDWATER RESULTS
PFOA
NOVEMBER 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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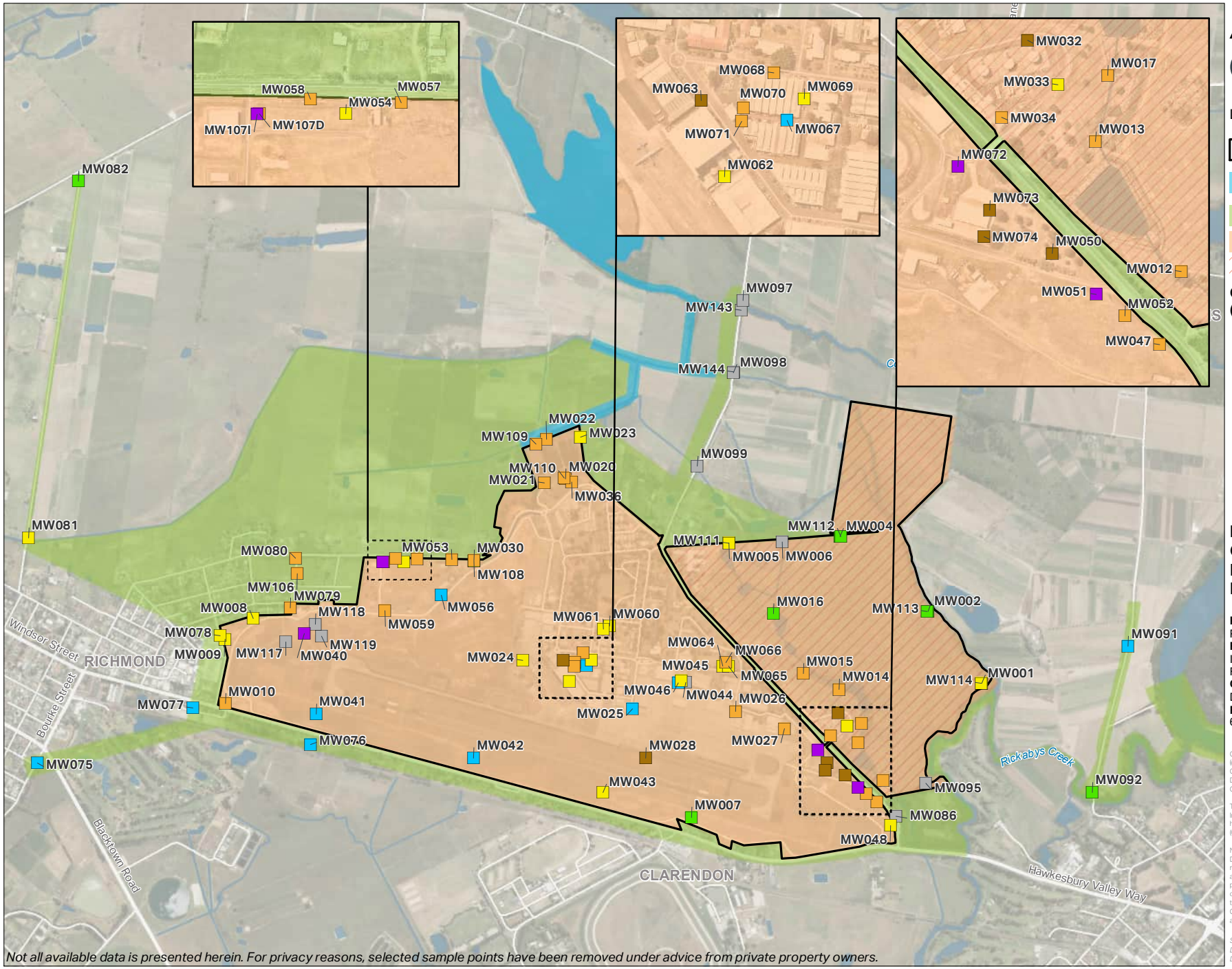

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AECOM

N

0 200 400 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Groundwater - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 1 - 10
- > 0.07 - 1
- Limit of Reporting - 0.07
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F8B:
GROUNDWATER RESULTS
PFOS + PFHXS
NOVEMBER 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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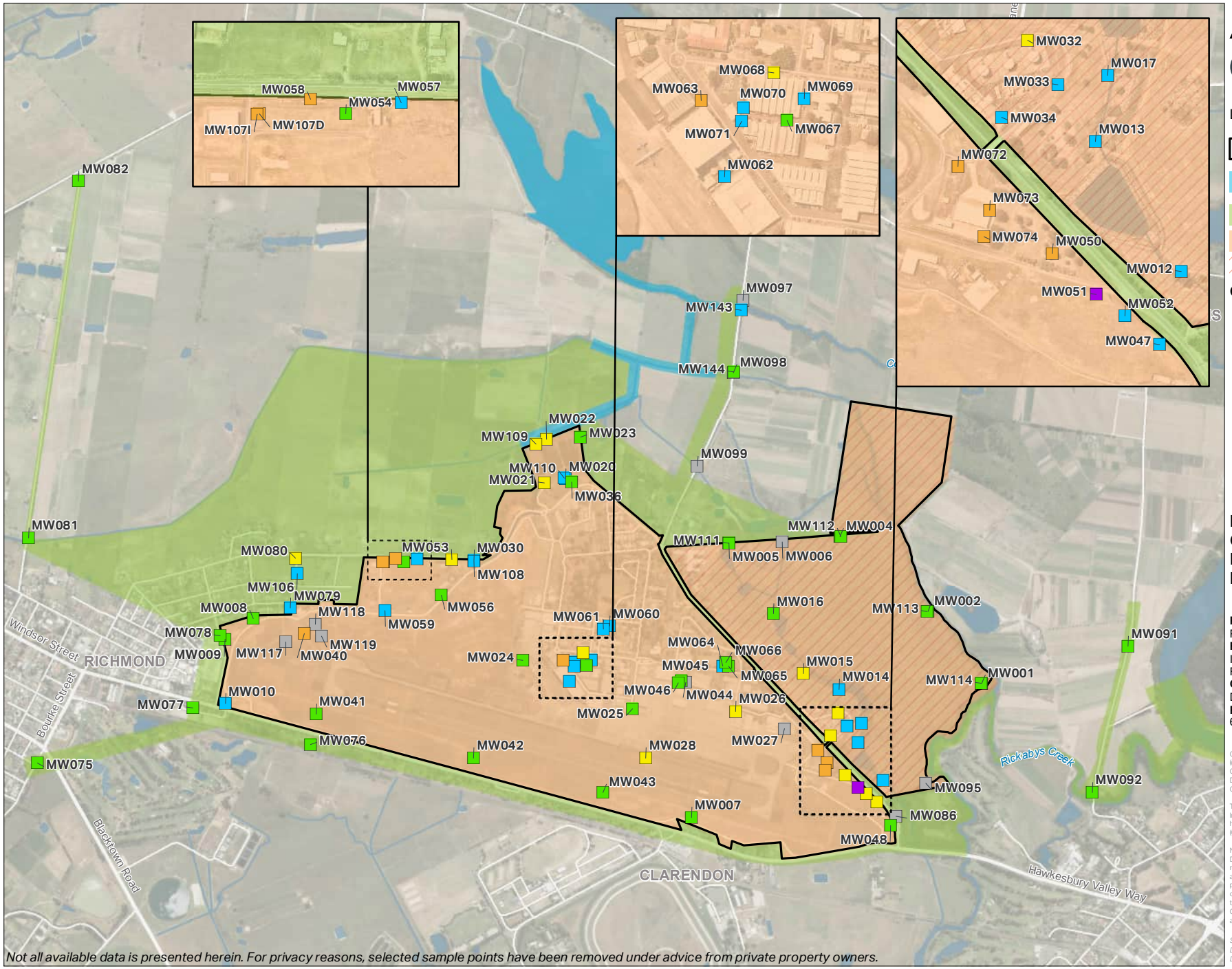

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AECOM

N

0 200 400 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management
- Onsite Management
- Rickabys Drop Zone

Groundwater - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F9A:
GROUNDWATER RESULTS
PFOA
MAY 2023

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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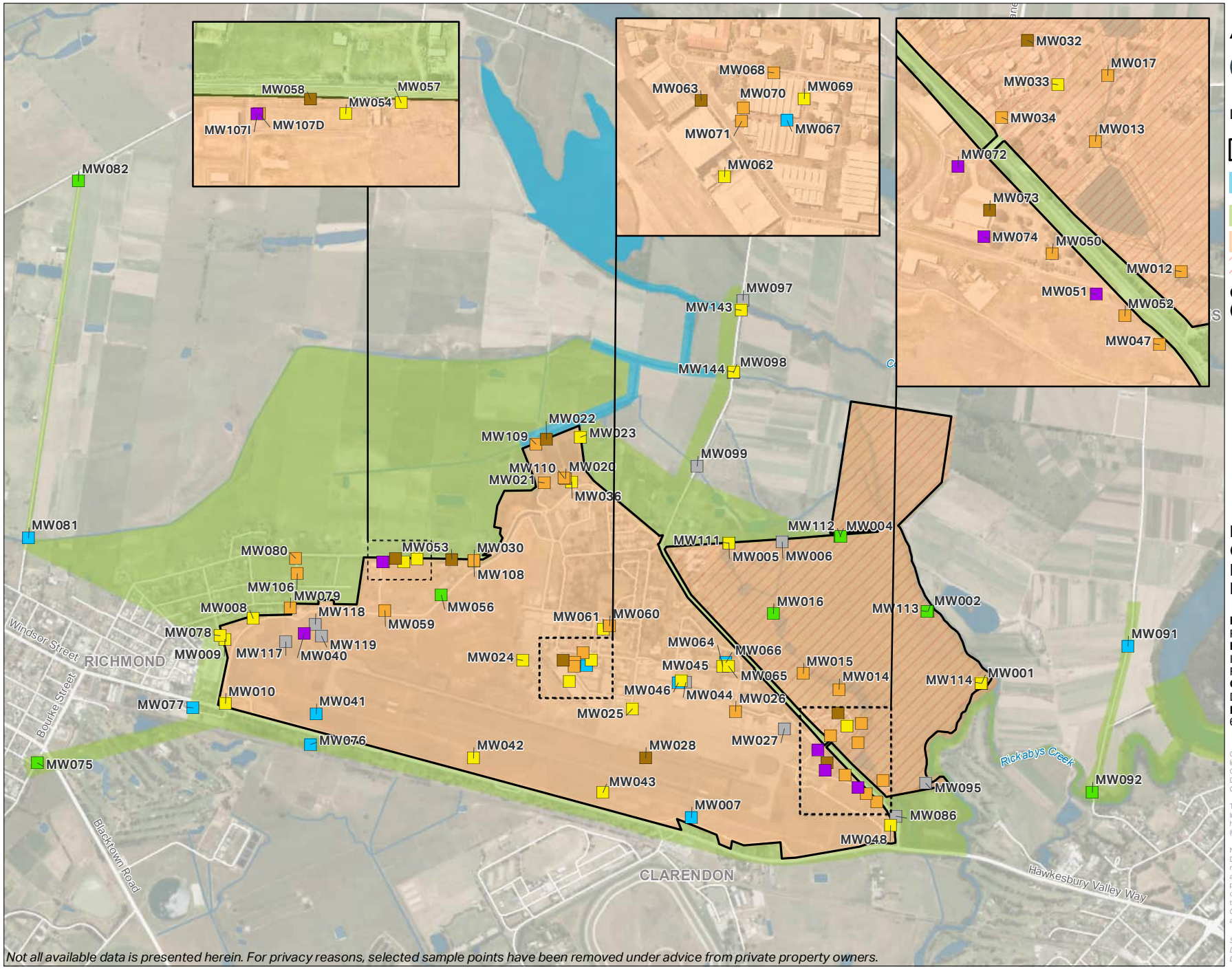

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AECOM

N

0 200 400 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Groundwater - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 1 - 10
- > 0.07 - 1
- Limit of Reporting - 0.07
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F9B:
GROUNDWATER RESULTS
PFOS + PFHXS
MAY 2023

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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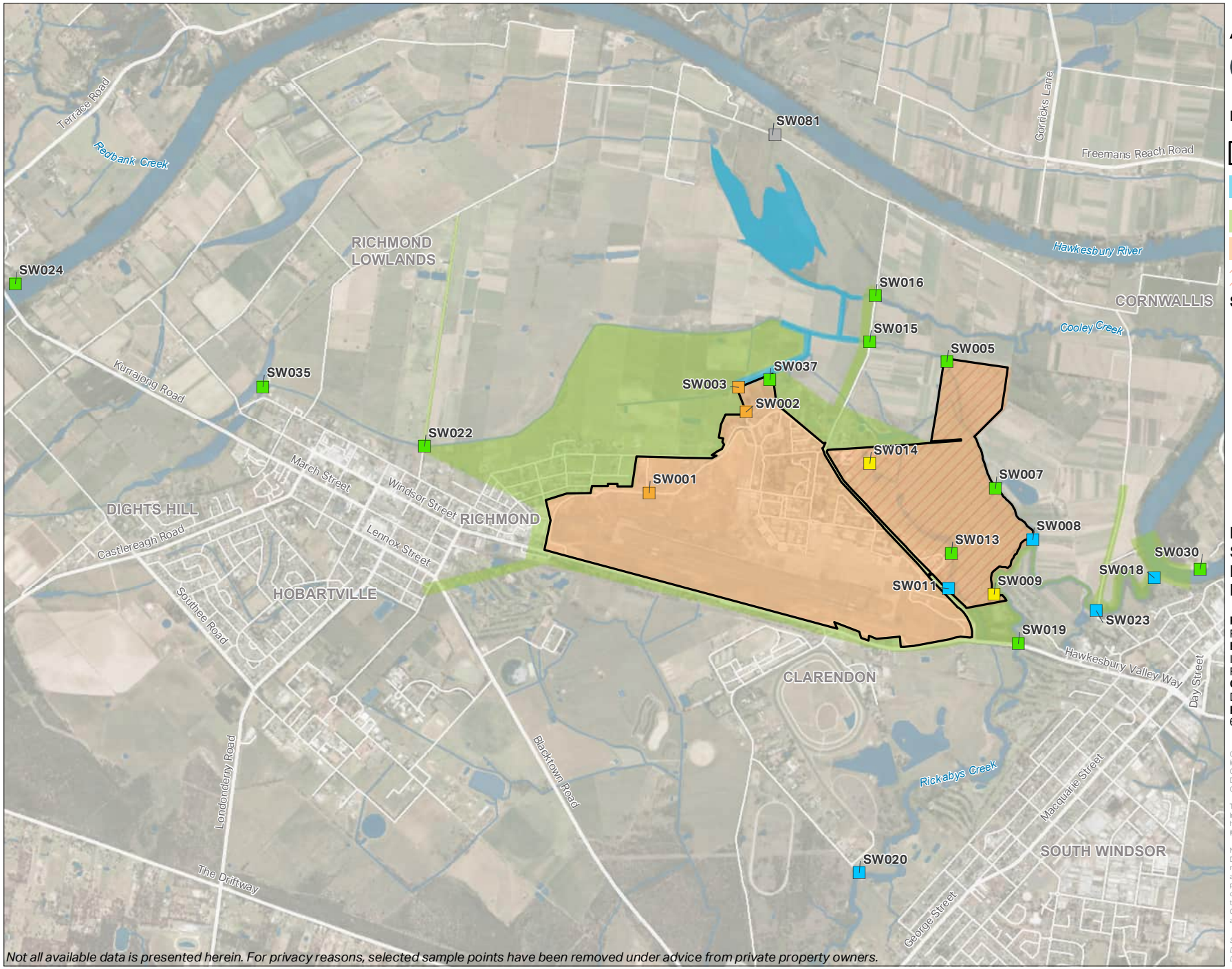

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Surface Water - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F10A:
SURFACE WATER RESULTS
PFOA
MAY 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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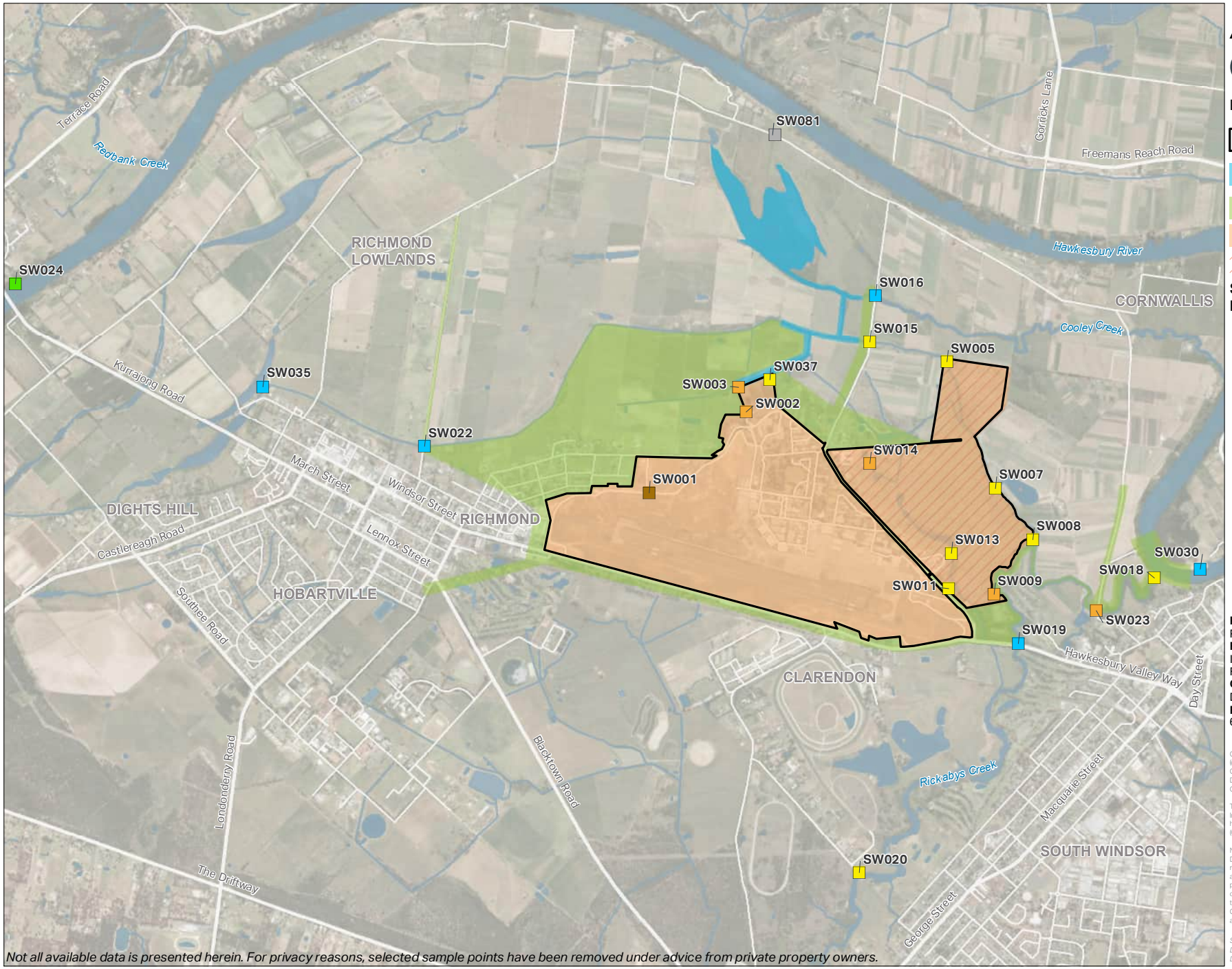

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Surface Water - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 2 - 10
- > 0.1 - 2
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F10B:
SURFACE WATER RESULTS
PFOS + PFHXS
MAY 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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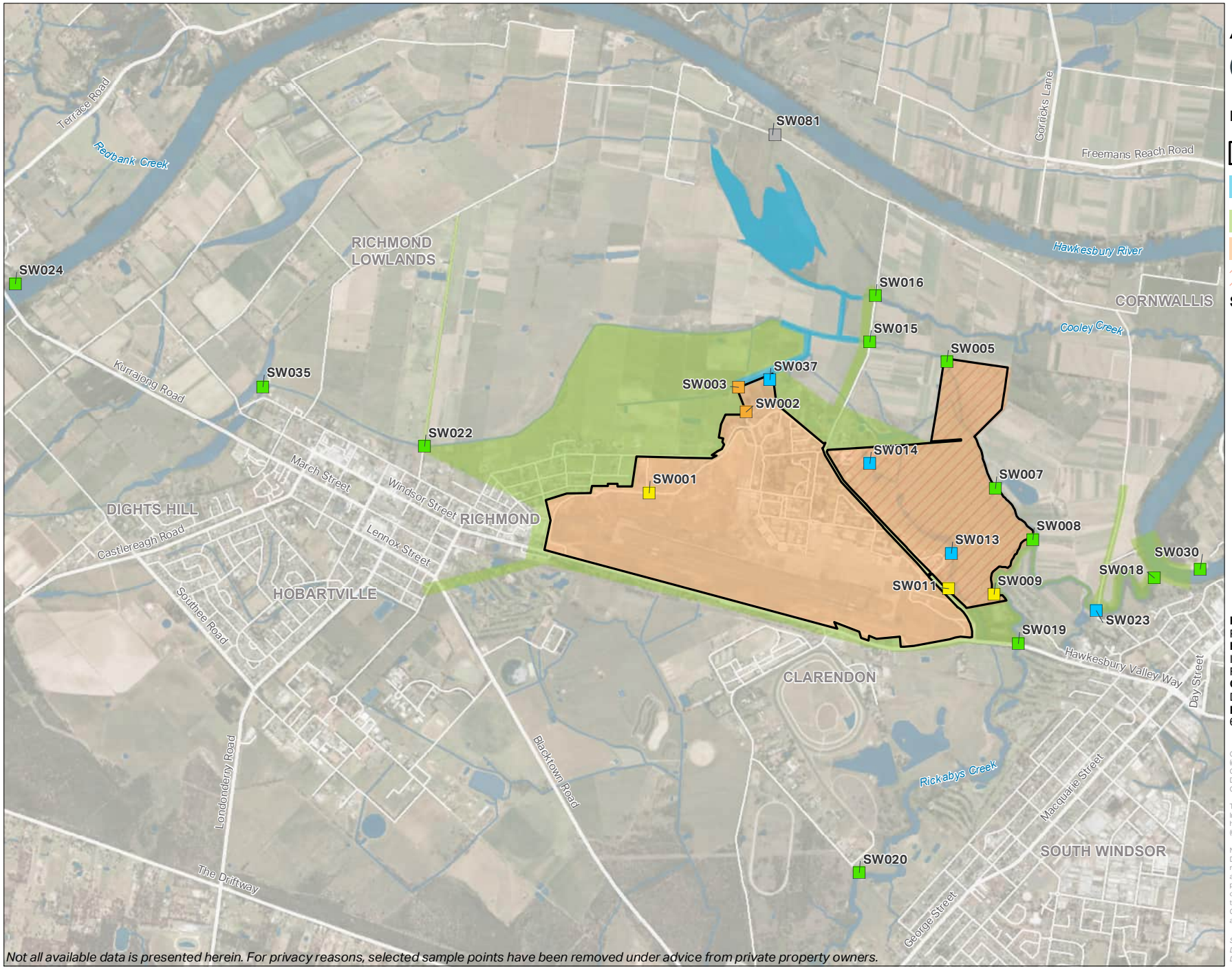

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Surface Water - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F11A:
SURFACE WATER RESULTS
PFOA
NOVEMBER 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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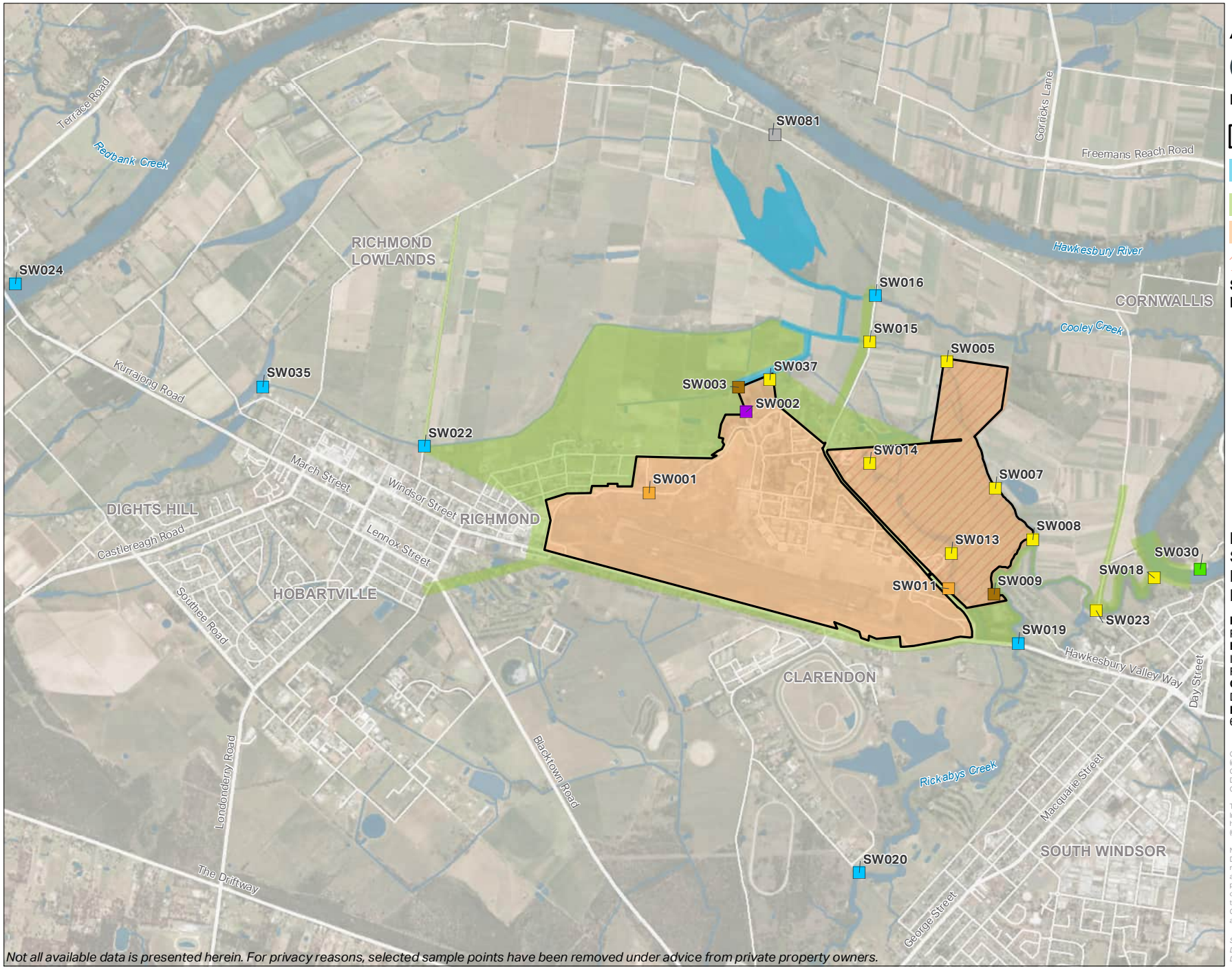

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Surface Water - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 2 - 10
- > 0.1 - 2
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F11B:
SURFACE WATER RESULTS
PFOS + PFHXS
NOVEMBER 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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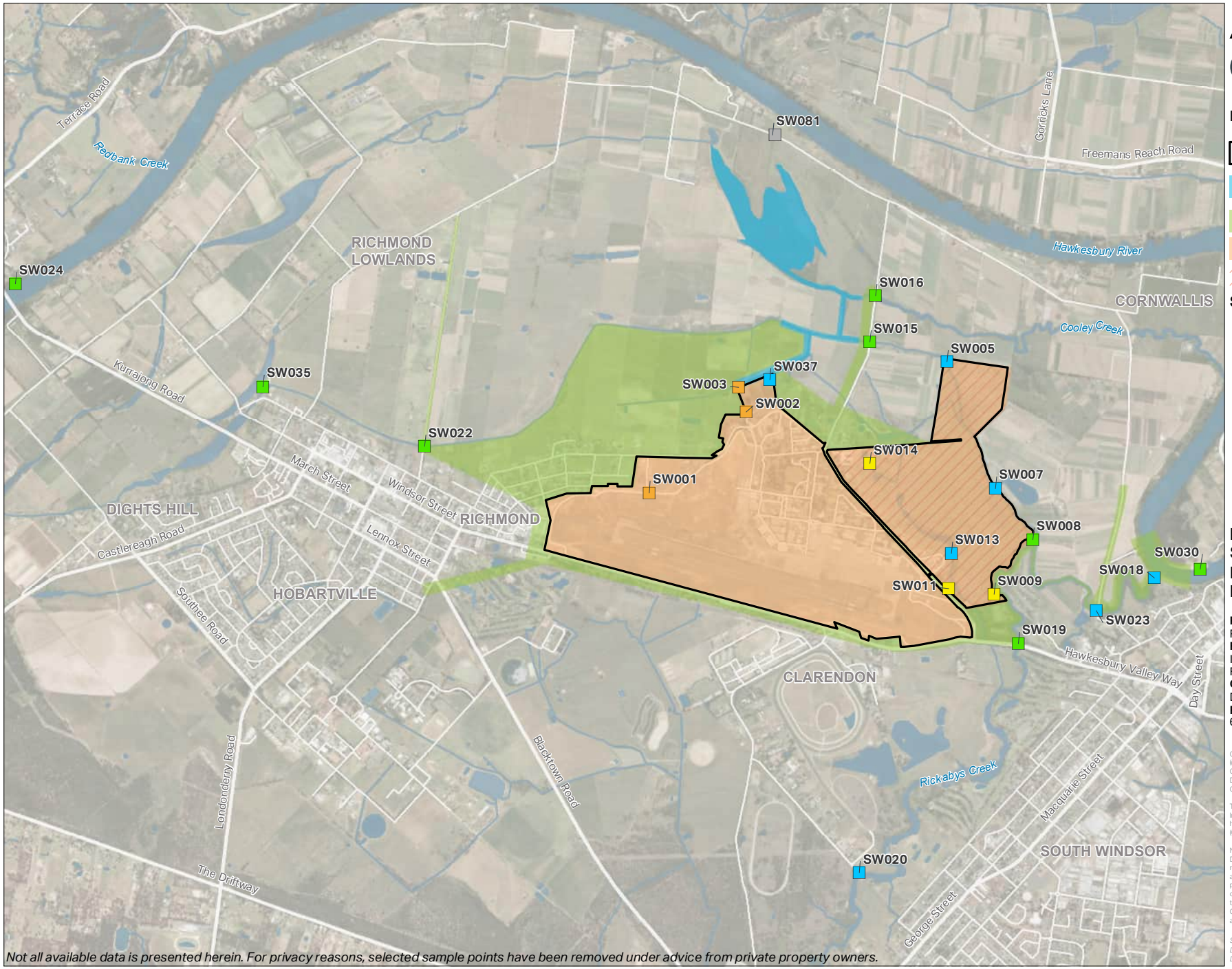

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Surface Water - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F12A:
SURFACE WATER RESULTS
PFOA
MAY 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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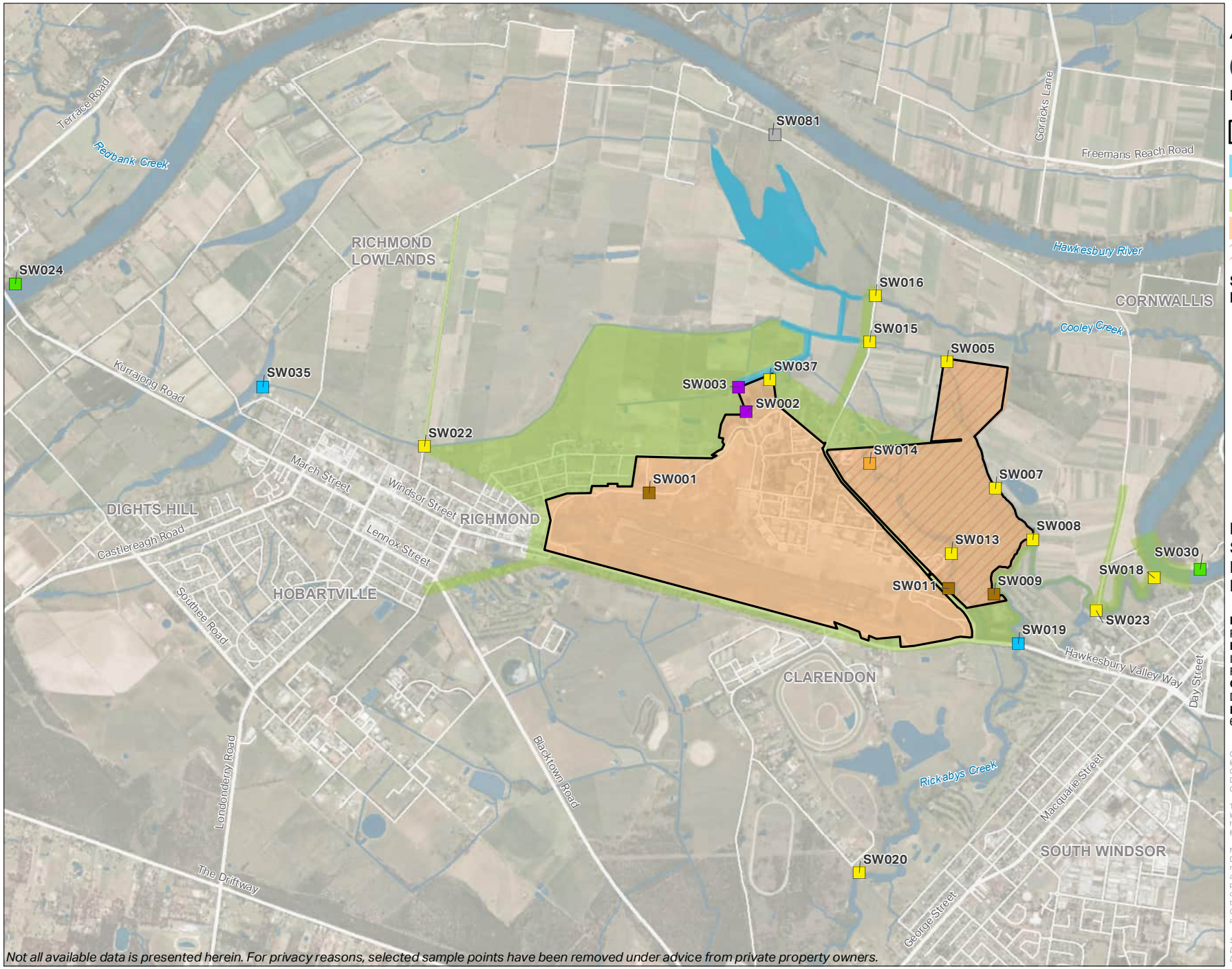

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Surface Water - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 2 - 10
- > 0.1 - 2
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F12B:
SURFACE WATER RESULTS
PFOS + PFHXS
MAY 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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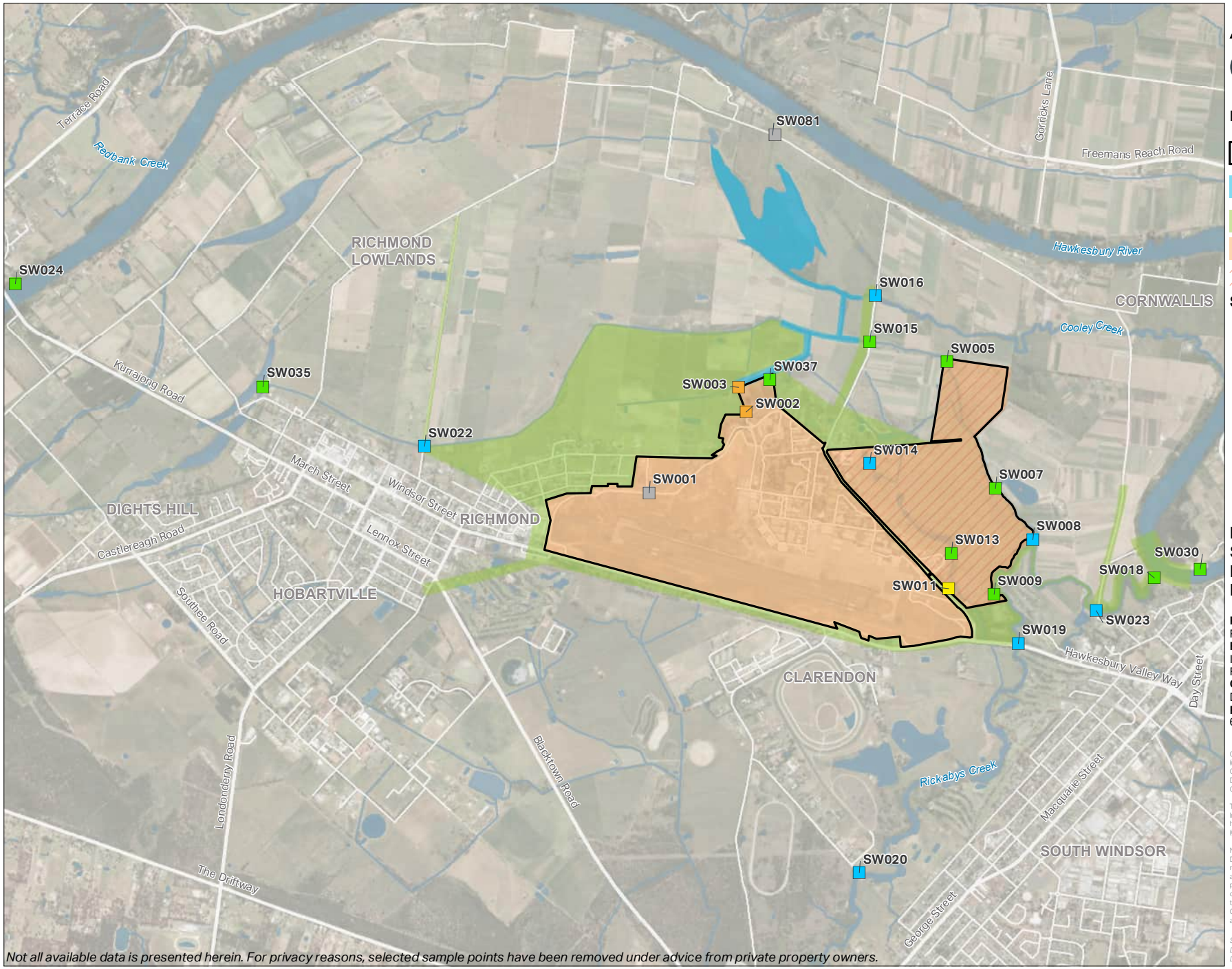

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Surface Water - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F13A:
SURFACE WATER RESULTS
PFOA
NOVEMBER 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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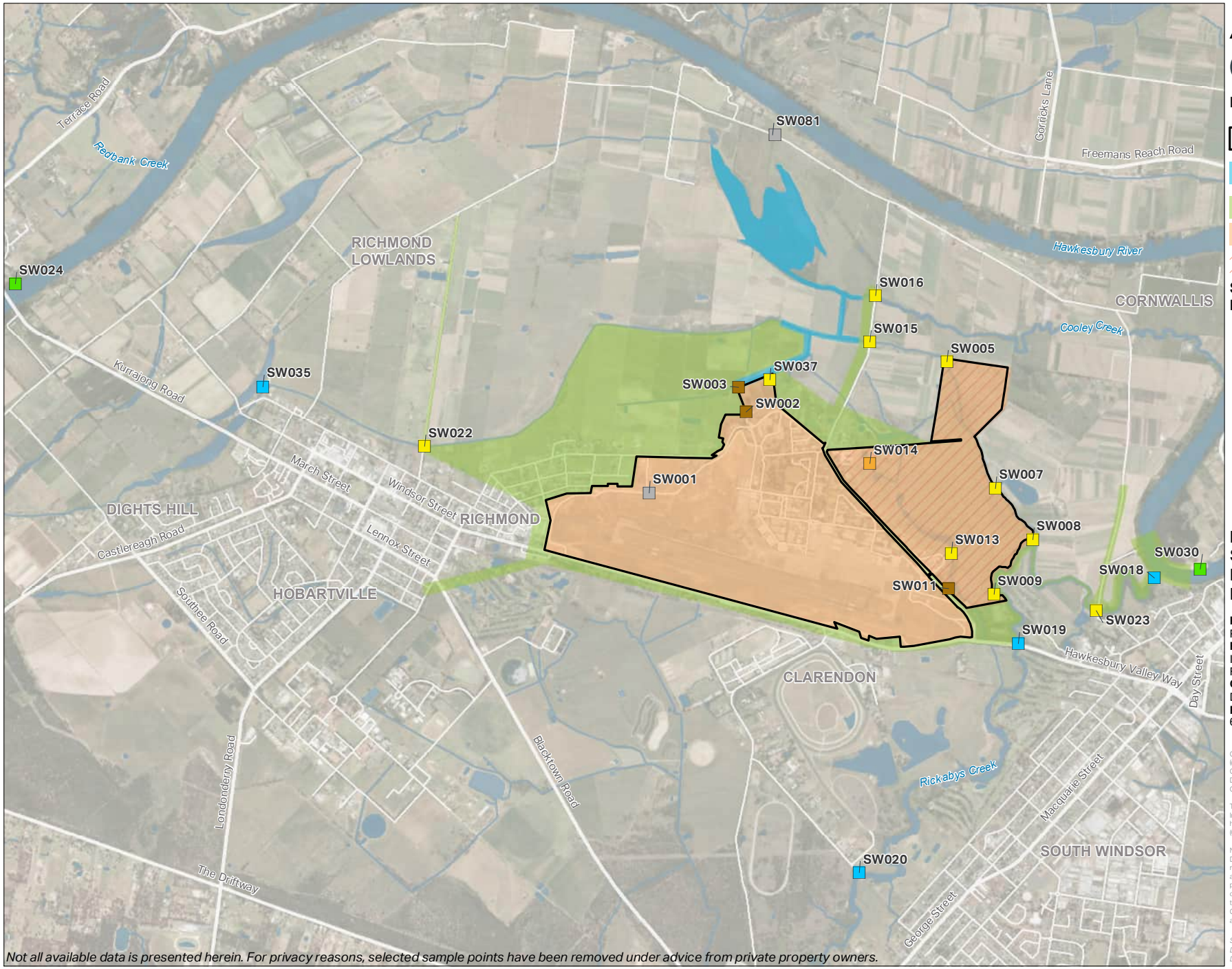

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Surface Water - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 2 - 10
- > 0.1 - 2
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F13B:
SURFACE WATER RESULTS
PFOS + PFHXS
NOVEMBER 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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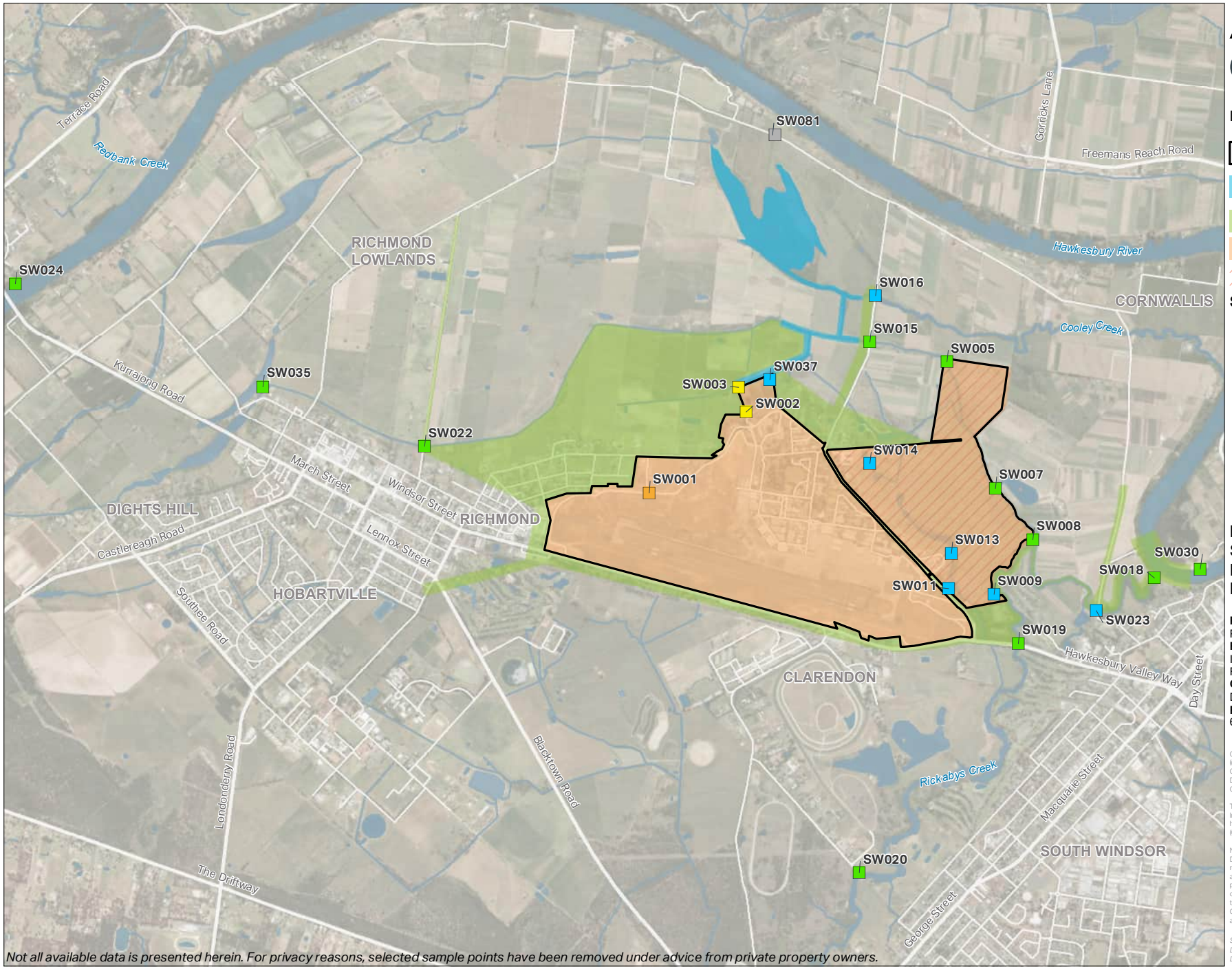

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Surface Water - PFOA (µg/L)

- > 50
- > 10 - 50
- > 0.56 - 10
- > 0.1 - 0.56
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F14A:
SURFACE WATER RESULTS
PFOA
MAY 2023

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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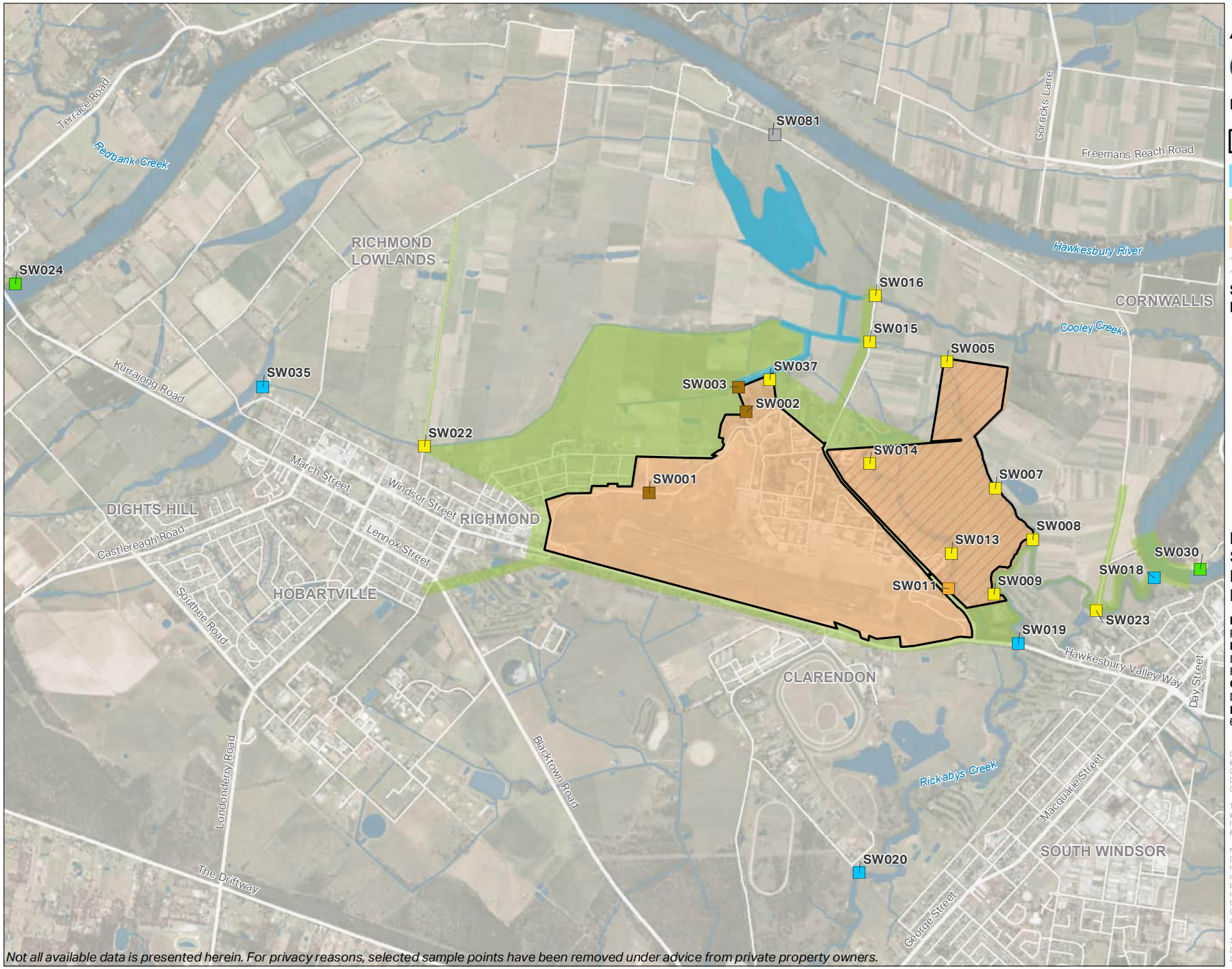

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Surface Water - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 2 - 10
- > 0.1 - 2
- Limit of Reporting - 0.1
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F14B:
SURFACE WATER RESULTS
PFOS + PFHXS
MAY 2023

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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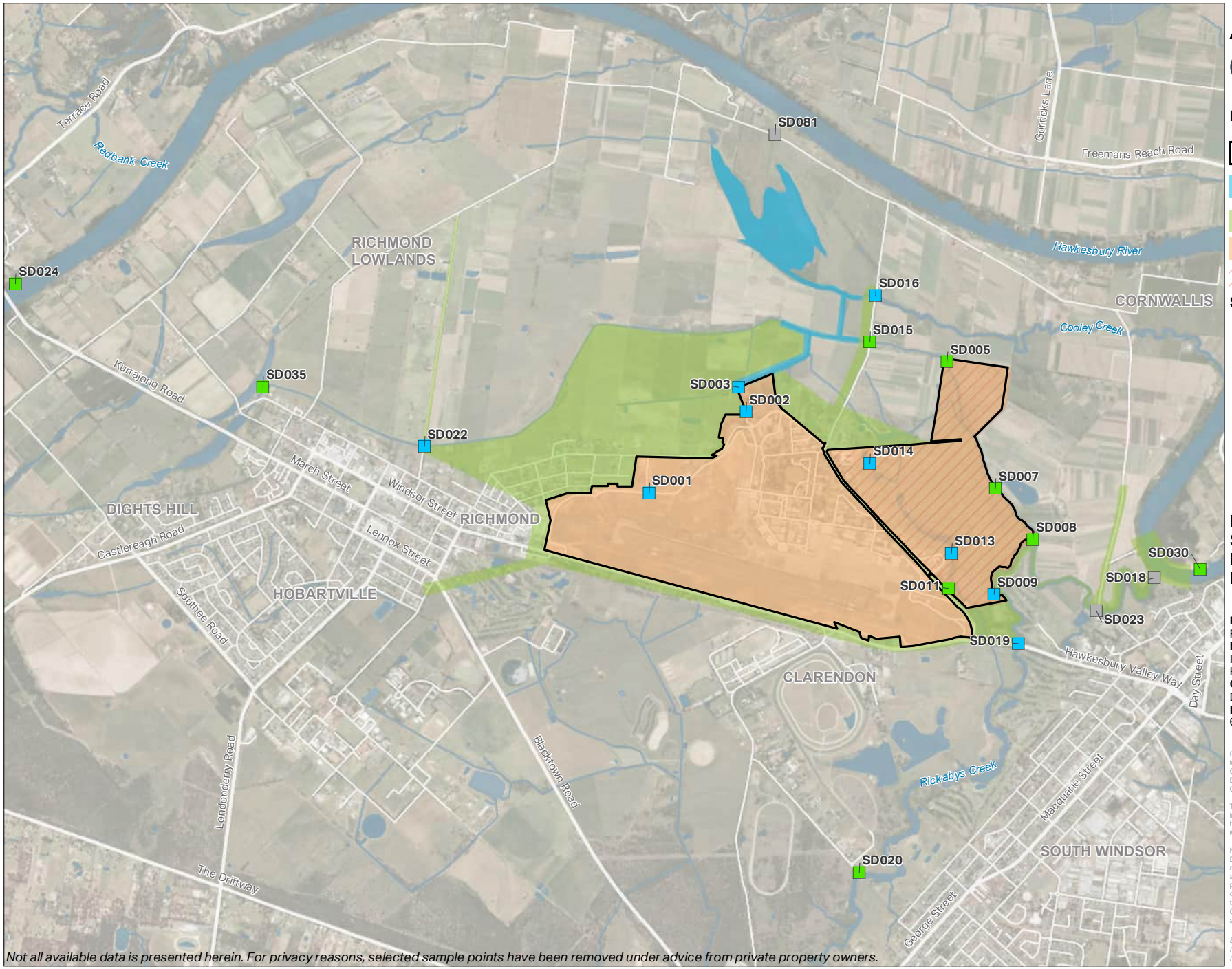

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Sediment - PFOA (mg/kg)

- > 50
- > 10 - 50
- > 0.2 - 10
- Limit of Reporting - 0.2
- <Limit of Reporting
- Sediment Location Not Sampled

FIGURE F15A:
SEDIMENT RESULTS
PFOA
MAY 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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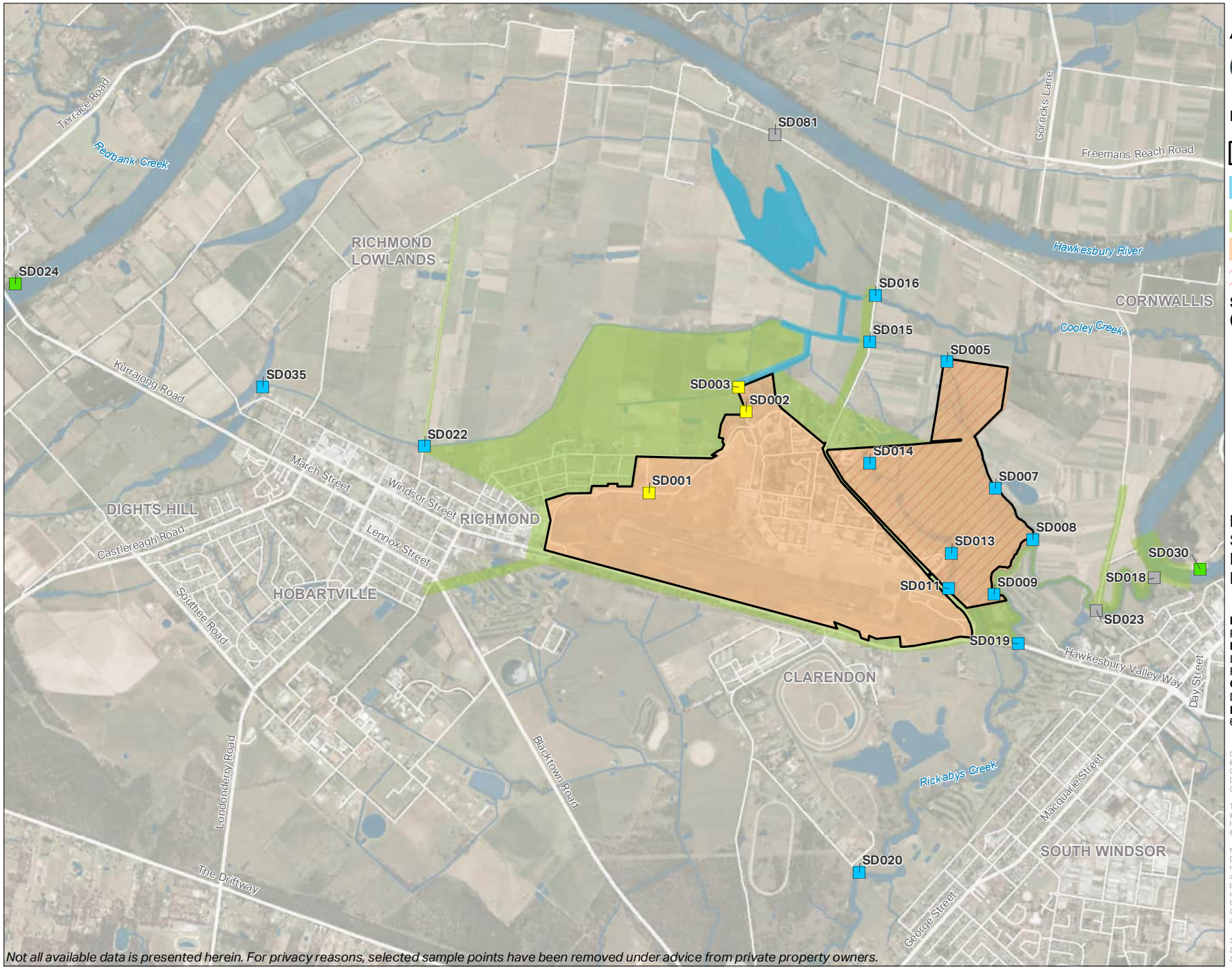

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Sediment - PFOS + PFHxS (mg/kg)

- > 50
- > 10 - 50
- > 0.2 - 10
- Limit of Reporting - 0.2
- < Limit of Reporting
- Sediment Location Not Sampled

FIGURE F15B:
SEDIMENT RESULTS
PFOS + PFHXS
MAY 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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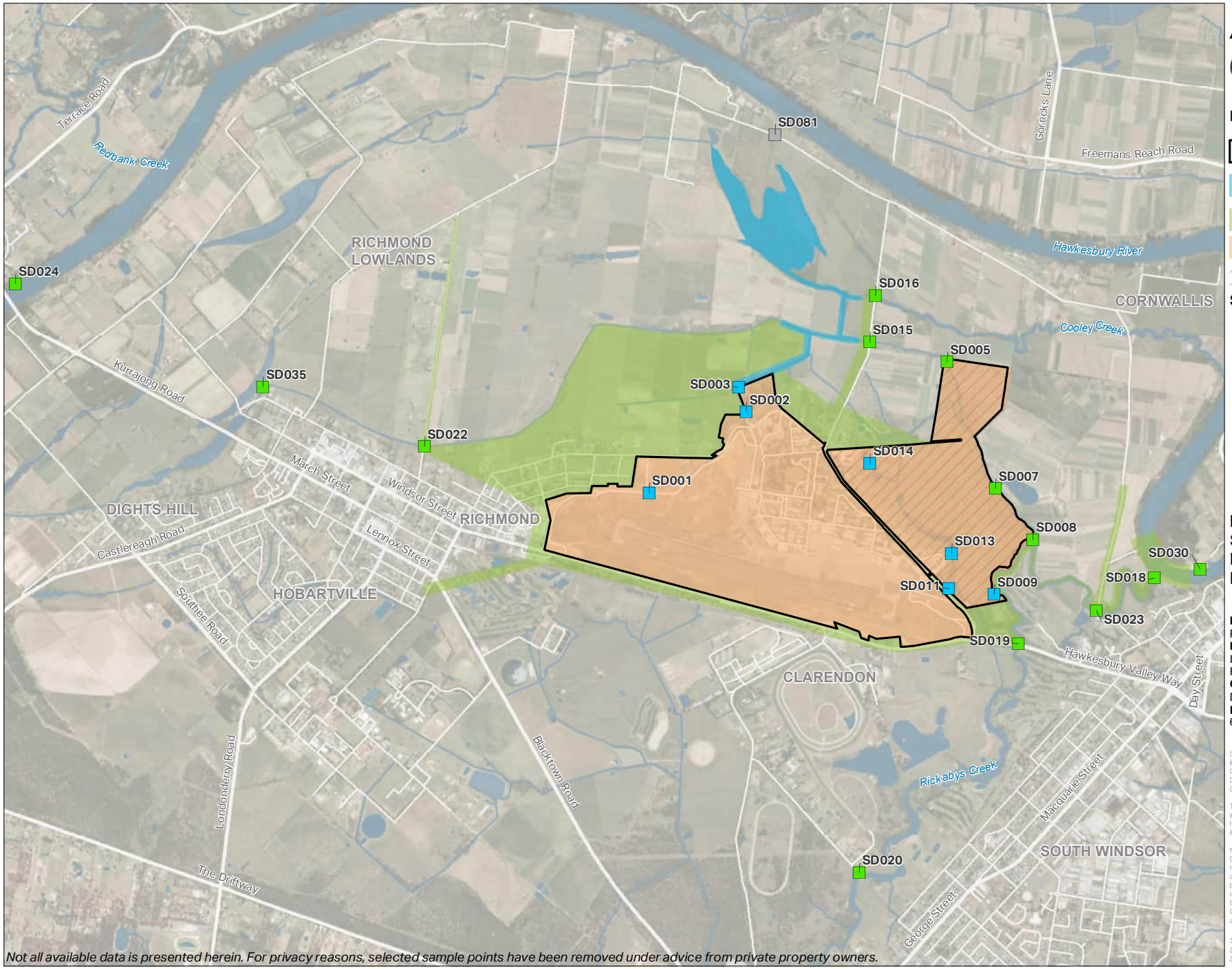

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Sediment - PFOA (mg/kg)

- > 50
- > 10 - 50
- > 0.2 - 10
- > Limit of Reporting - 0.2
- < Limit of Reporting
- Sediment Location Not Sampled

FIGURE F16A:
SEDIMENT RESULTS
PFOA
NOVEMBER 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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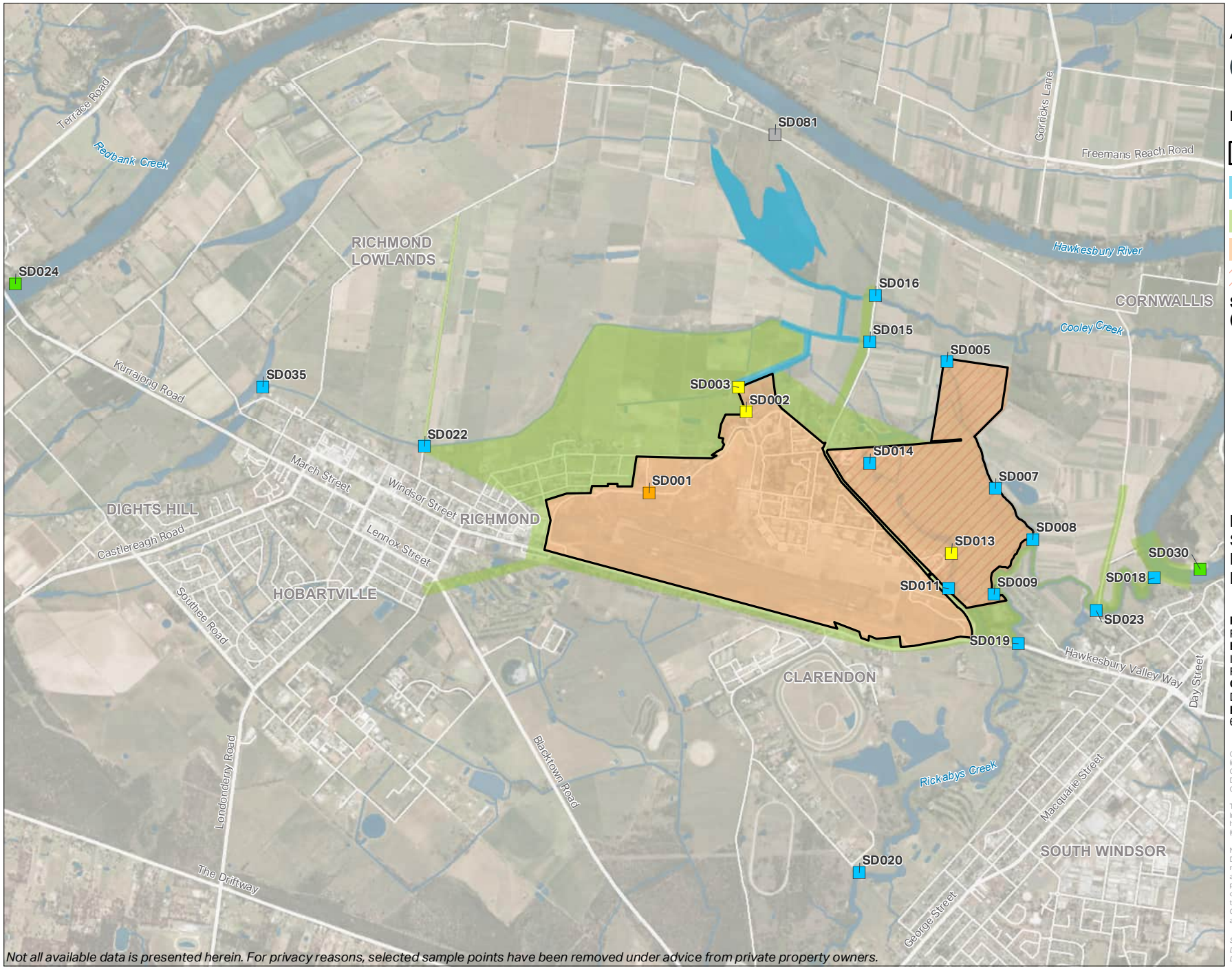

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Sediment - PFOS + PFHxS (mg/kg)

- > 50
- > 10 - 50
- > 0.2 - 10
- Limit of Reporting - 0.2
- < Limit of Reporting
- Sediment Location Not Sampled

FIGURE F16B:
SEDIMENT RESULTS
PFOS + PFHXS
NOVEMBER 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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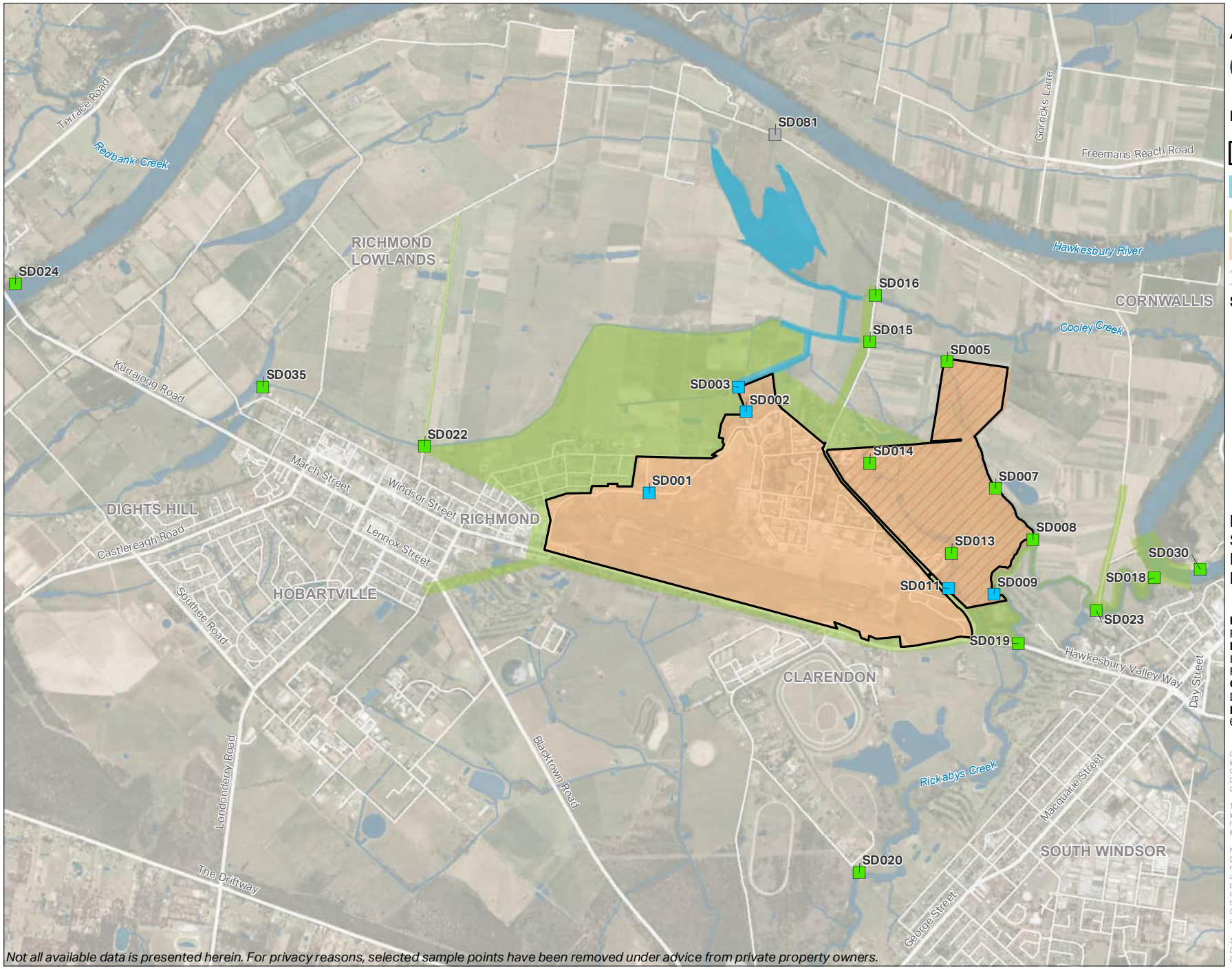

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Sediment - PFOA (mg/kg)

- > 50
- > 10 - 50
- > 0.2 - 10
- > Limit of Reporting - 0.2
- < Limit of Reporting
- Sediment Location Not Sampled

FIGURE F17A:
SEDIMENT RESULTS
PFOA
MAY 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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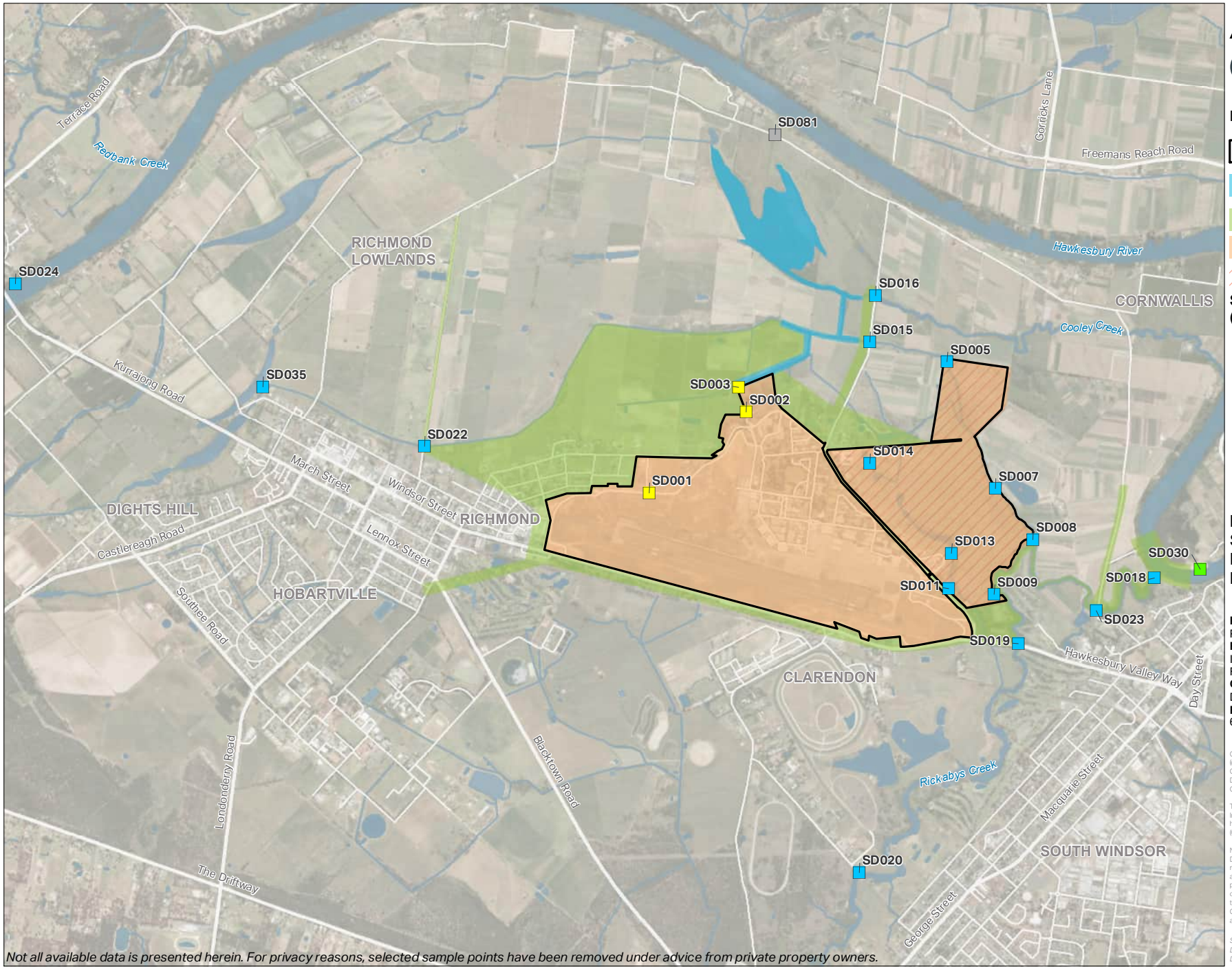

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Sediment - PFOS + PFHxS (mg/kg)

- > 50
- > 10 - 50
- > 0.2 - 10
- Limit of Reporting - 0.2
- < Limit of Reporting
- Sediment Location Not Sampled

FIGURE F17B:
SEDIMENT RESULTS
PFOS + PFHXS
MAY 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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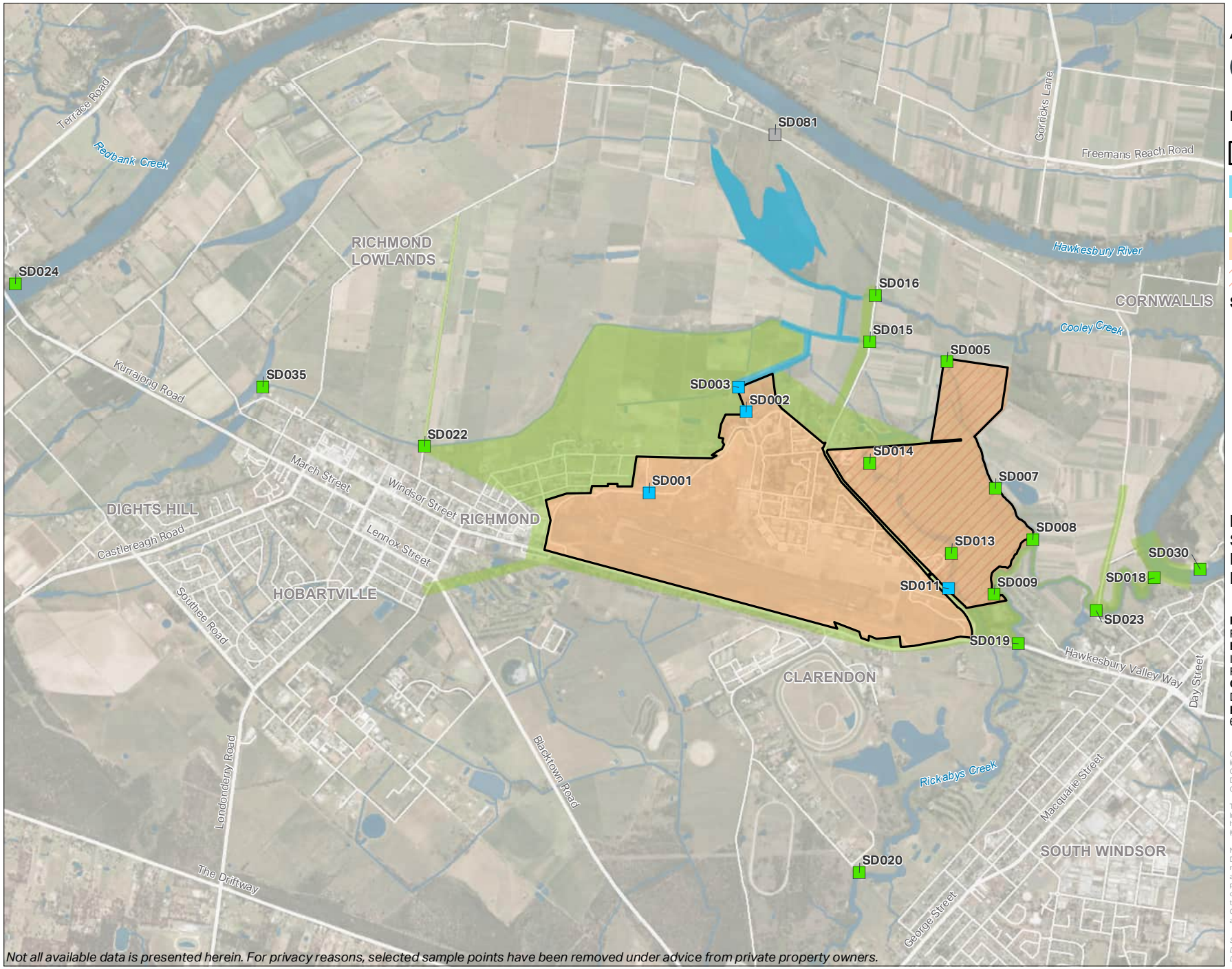

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Sediment - PFOA (mg/kg)

- > 50
- > 10 - 50
- > 0.2 - 10
- Limit of Reporting - 0.2
- < Limit of Reporting
- Sediment Location Not Sampled

FIGURE F18A:
SEDIMENT RESULTS
PFOA
NOVEMBER 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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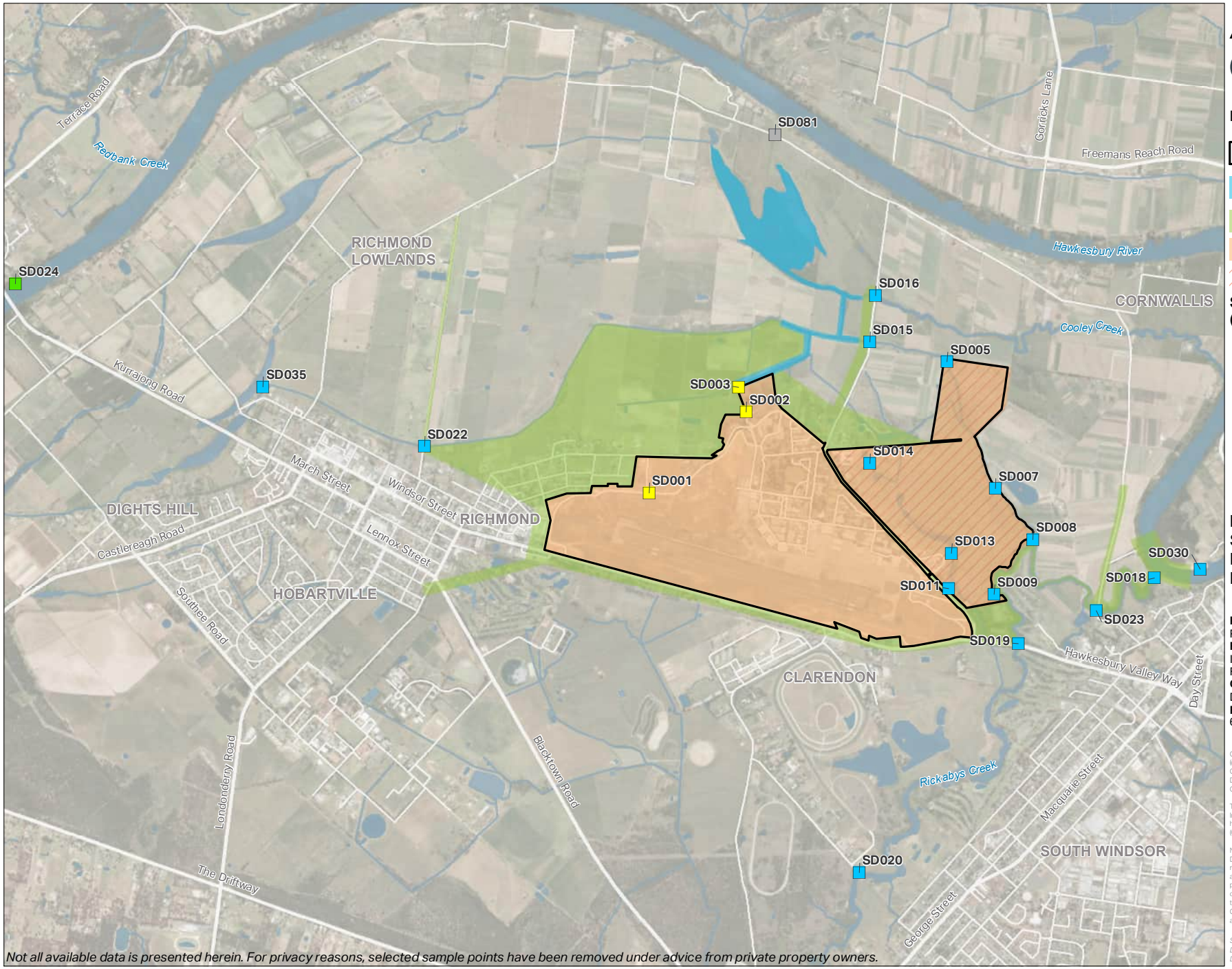

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Sediment - PFOS + PFHxS (mg/kg)

- > 50
- > 10 - 50
- > 0.2 - 10
- Limit of Reporting - 0.2
- < Limit of Reporting
- Sediment Location Not Sampled

FIGURE F18B:
SEDIMENT RESULTS
PFOS + PFHXS
NOVEMBER 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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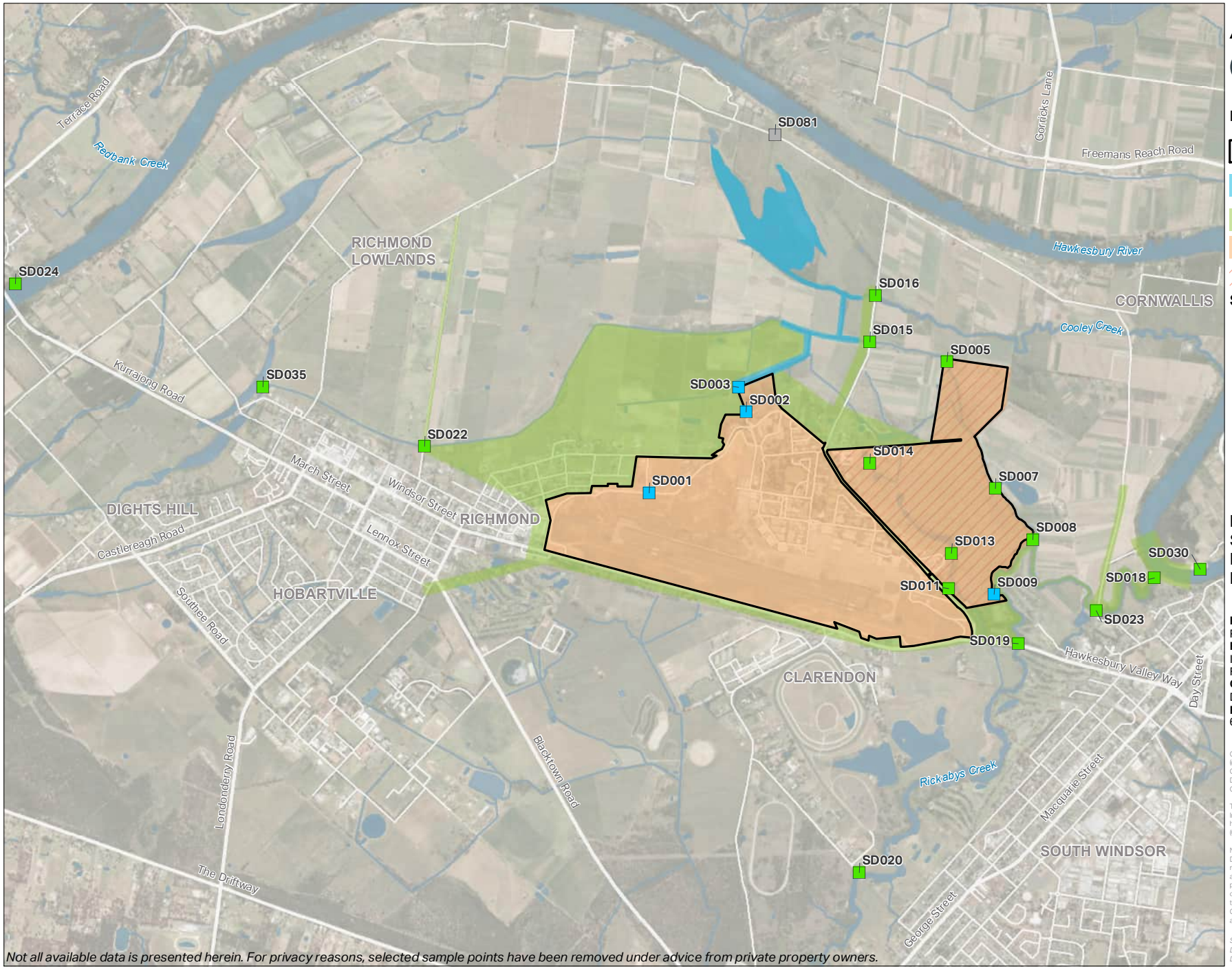

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Sediment - PFOA (mg/kg)

- > 50
- > 10 - 50
- > 0.2 - 10
- Limit of Reporting - 0.2
- < Limit of Reporting
- Sediment Location Not Sampled

FIGURE F19A:
SEDIMENT RESULTS
PFOA
MAY 2023

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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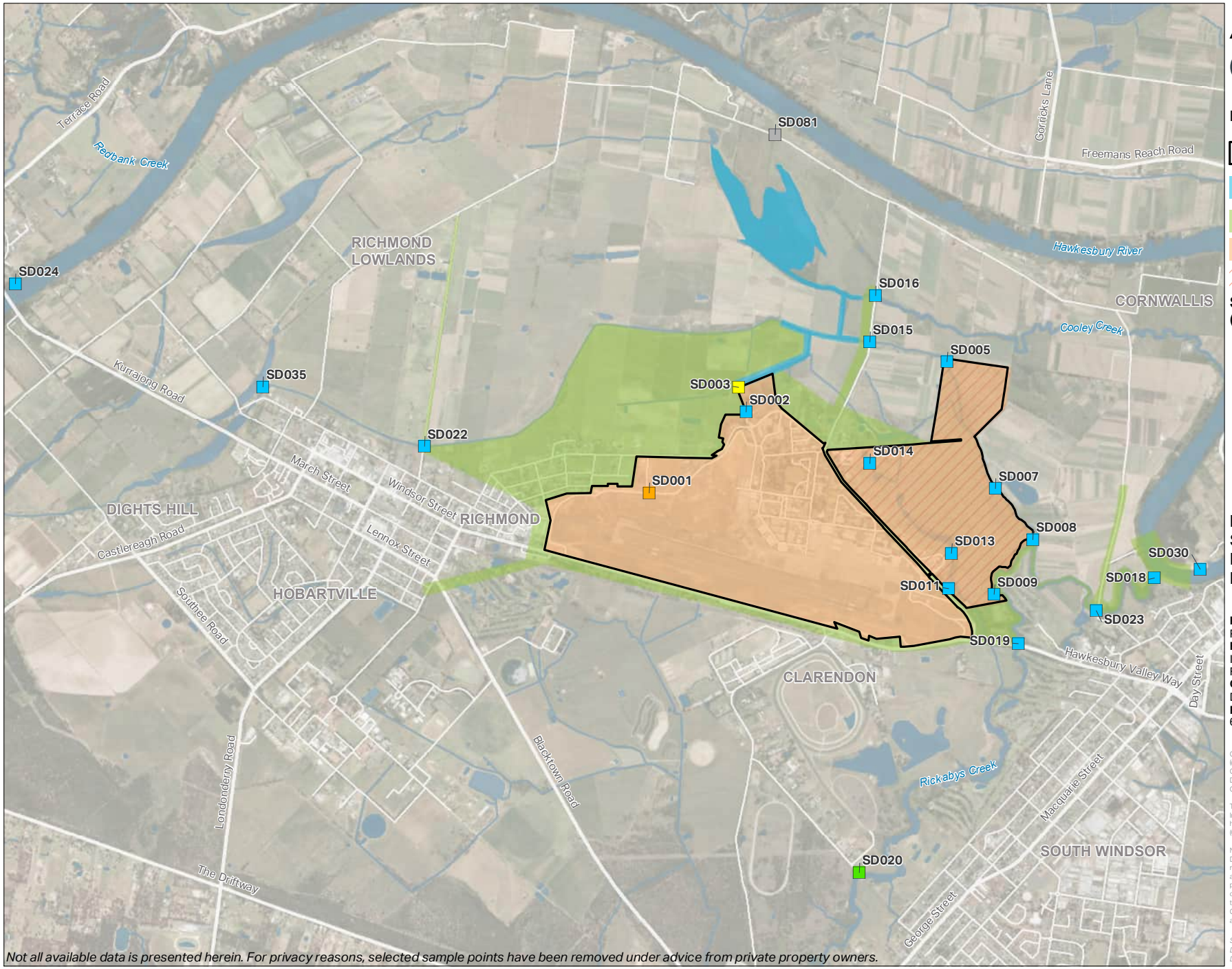

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AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

Sediment - PFOS + PFHxS (mg/kg)

- > 50
- > 10 - 50
- > 0.2 - 10
- Limit of Reporting - 0.2
- < Limit of Reporting
- Sediment Location Not Sampled

FIGURE F19B:
SEDIMENT RESULTS
PFOS + PFHXS
MAY 2023

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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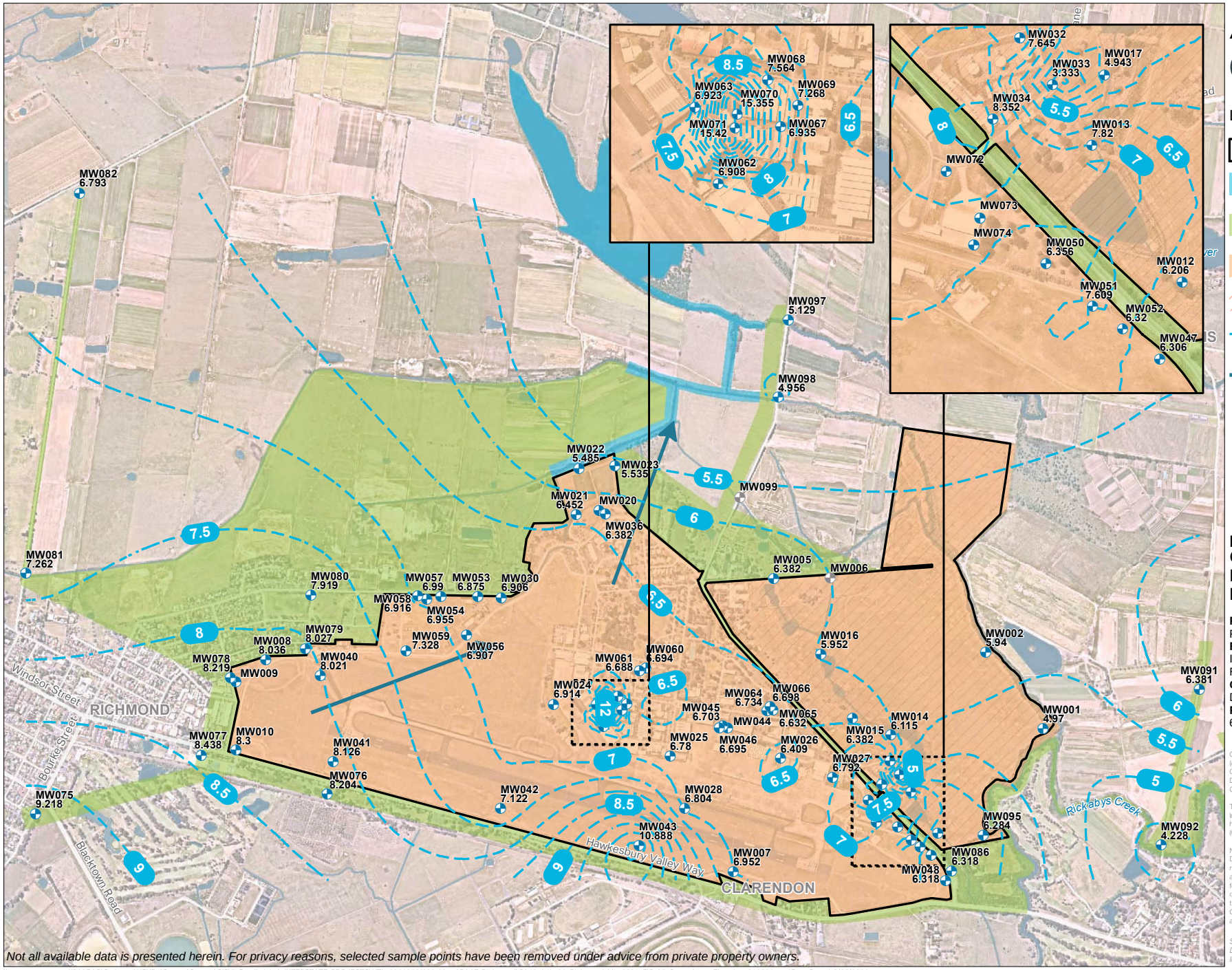

AECOM

N

0 250 500 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Contours (mAHD)
- Inferred Groundwater Flow Direction
- Groundwater Sample Location (mAHD)
- Location not gauged

FIGURE F20:
GROUNDWATER ELEVATION PLAN MAY 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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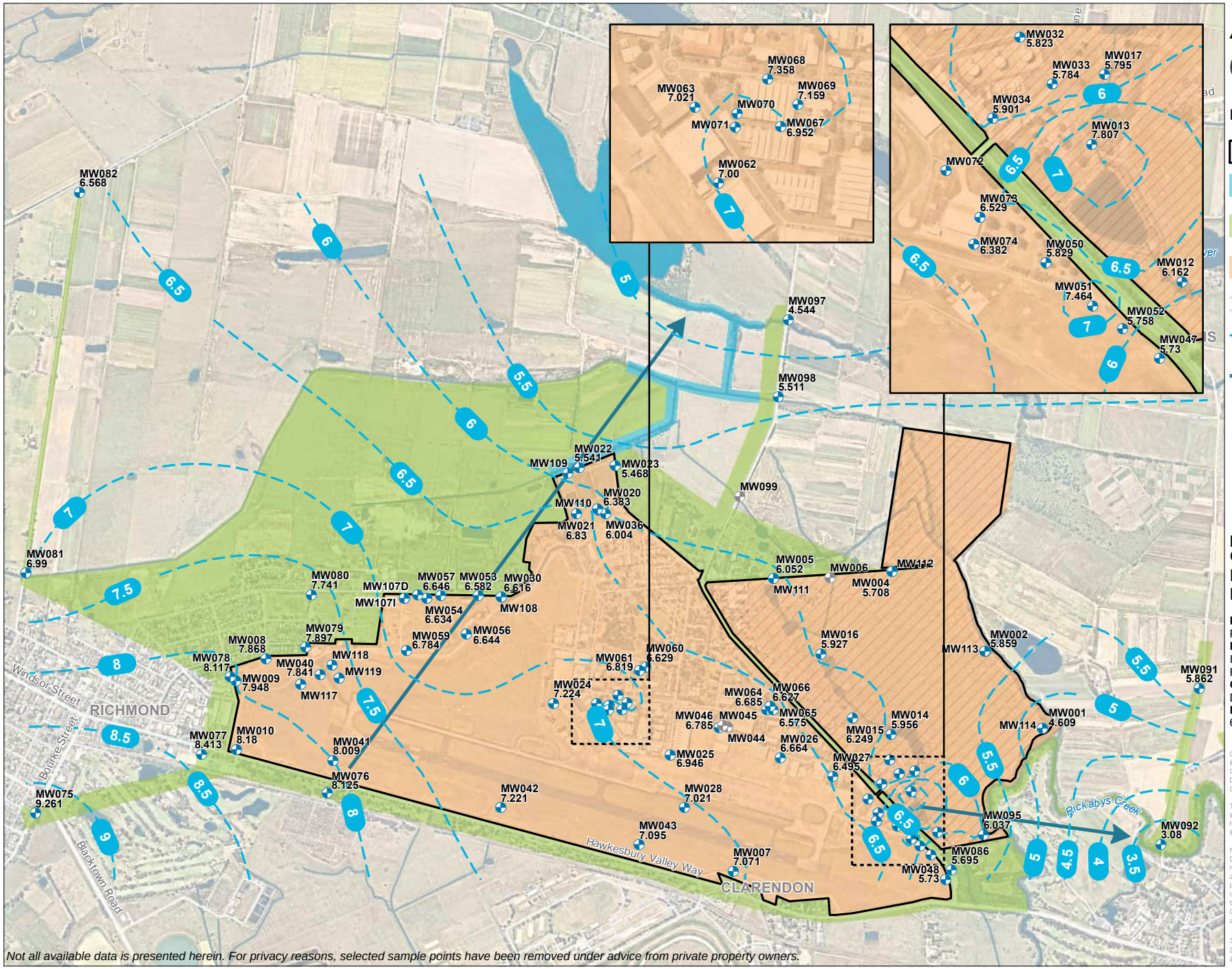

AECOM

N

0 250 500 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Off-site Management Area
- On-site Management Area
- Rickabys Drop Zone
- Groundwater Contours (mAHD)
- Inferred Groundwater Flow Direction
- Groundwater Sample Location (mAHD)
- Location not gauged

FIGURE F21:
GROUNDWATER ELEVATION PLAN, NOVEMBER 2021

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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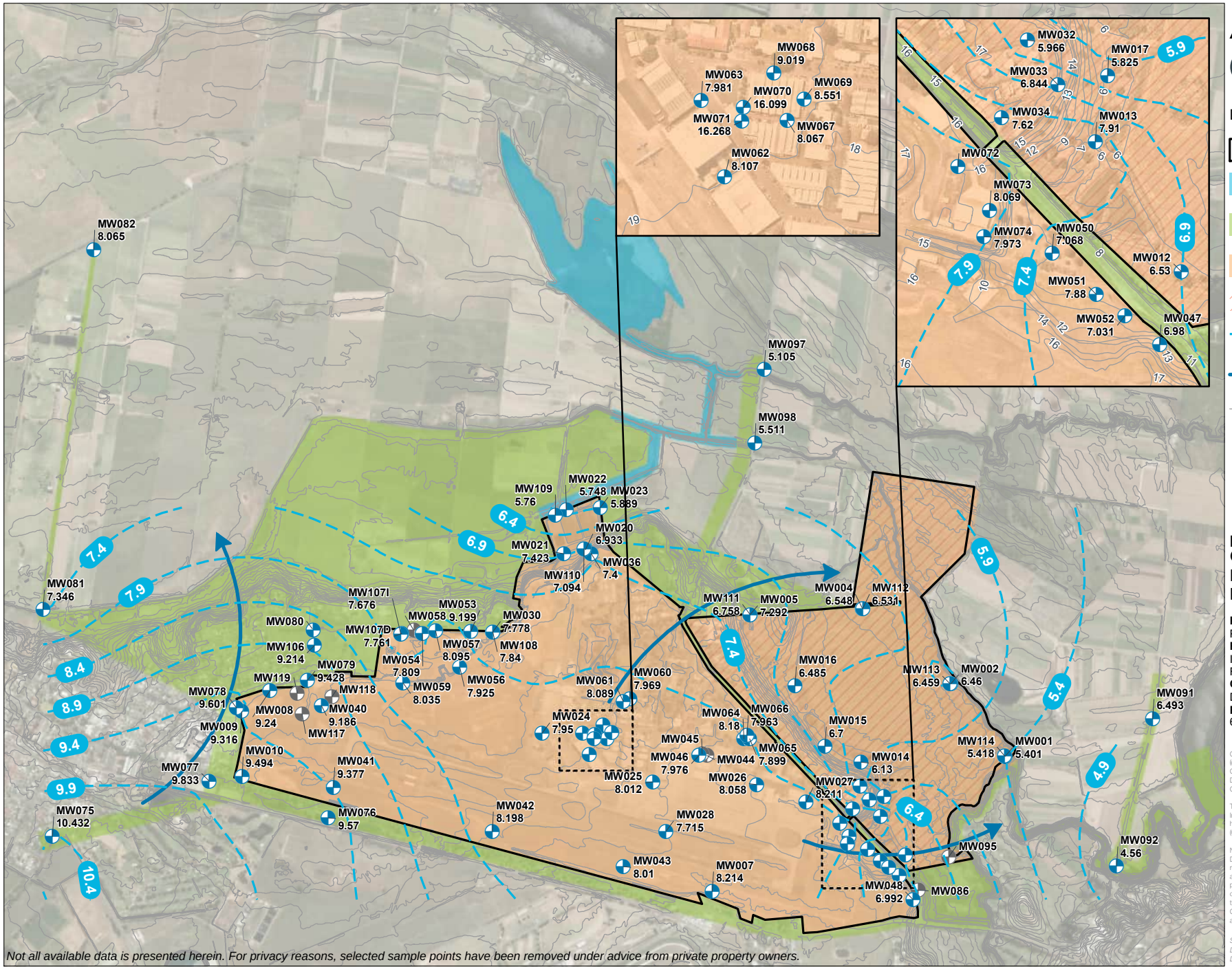

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AECOM

N

0 200 400 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Contours (mAHD)
- Inferred Groundwater Flow Direction
- 1m Contour
- Groundwater Location (gauged)
- Groundwater Location (not sampled)

FIGURE F22:
GROUNDWATER ELEVATION PLAN MAY 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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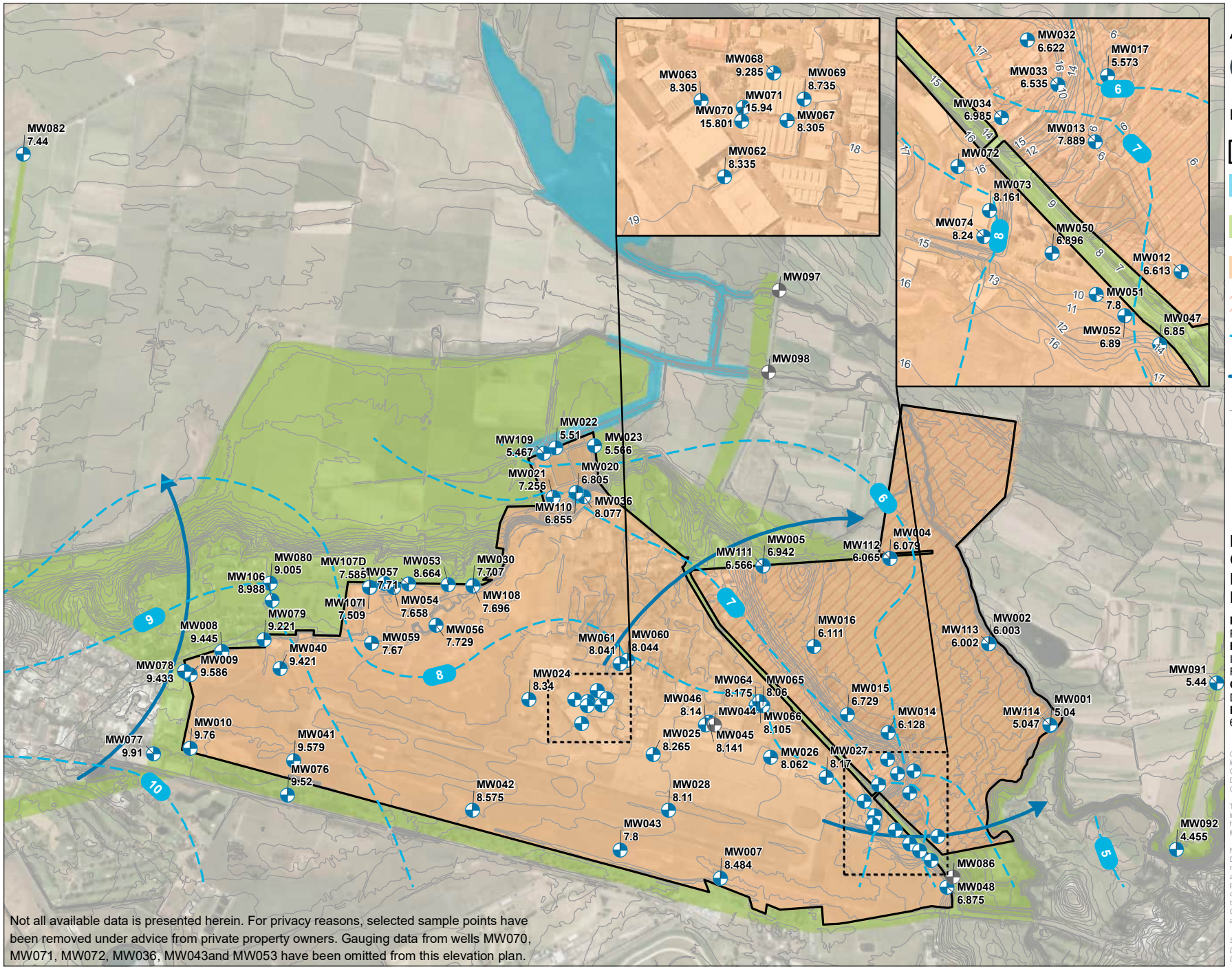

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AECOM

N

0 200 400 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Contours (mAHD)
- Inferred Groundwater Flow Direction
- 1m Contour
- Groundwater Location (gauged)
- Groundwater Location (not gauged or accessed)

FIGURE F23: GROUNDWATER ELEVATION PLAN, NOVEMBER 2022

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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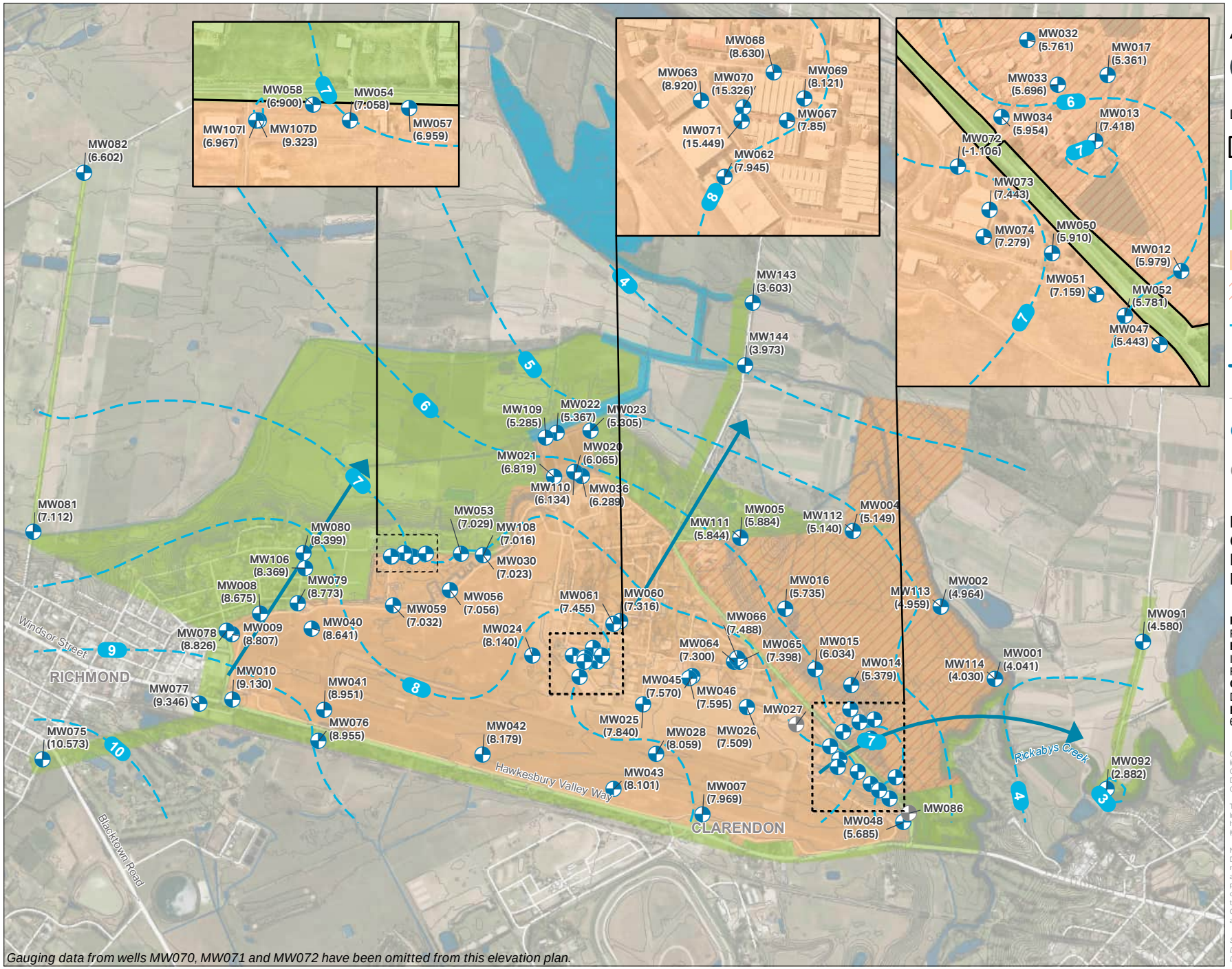

AECOM

N

0 200 400 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Contours (mAHD)
- Inferred Groundwater Flow Direction
- 1m Contour
- Groundwater Location (gauged)
- Groundwater Location (not gauged)

FIGURE F24:
GROUNDWATER ELEVATION PLAN, MAY 2023

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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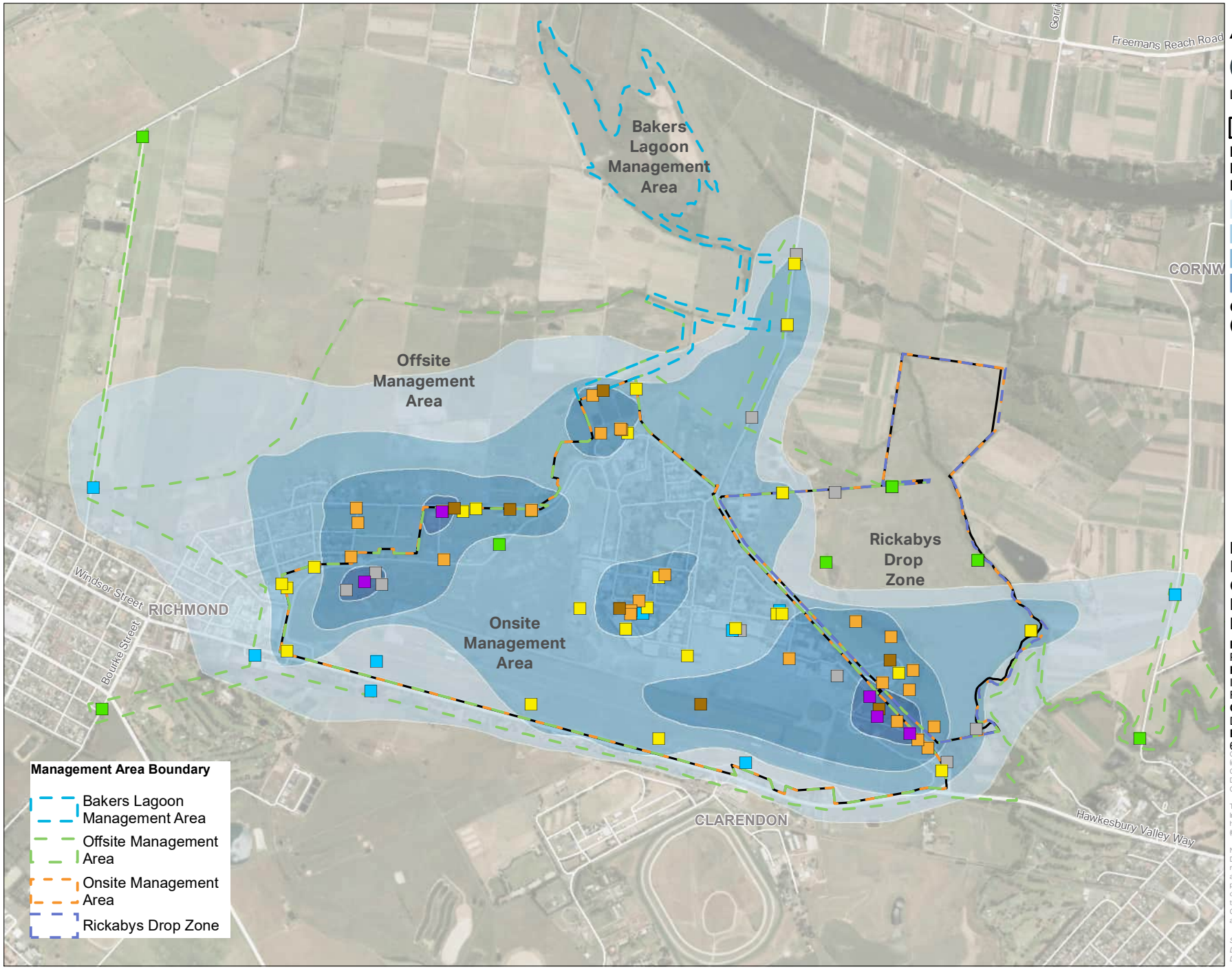

AECOM

N

0 200 400 m

Legend

Defence Site Boundary

Interpreted PFOS + PFHxS Concentration Ranges (µg/L)

- LOR - 0.07
- > 0.07 - 10
- > 10 - 50
- > 50

Groundwater - PFOS + PFHxS (µg/L)

- > 50
- > 10 - 50
- > 1 - 10
- > 0.07 - 1
- Limit of Reporting - 0.07
- < Limit of Reporting
- Not Sampled/Accessed or in Scope

FIGURE F25:
INTERPRETED EXTENT OF GROUNDWATER IMPACT PFOS + PFHXS
MAY 2023

PROJECT NAME:
PFAS OMP
REPORT NAME:
Interpretive Report 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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Appendix B

OMP Factual Reports & SAQP

Prepared for
Department of Defence
ABN: 68 706 814 312

DRAFT

RAAF Richmond - Sampling and Analysis Quality Plan

PFAS OMP

02-May-2023
Doc No. 20230502_OMP002_Richmond_SAQP_Rev K

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Delivering a better world

D R A F T

RAAF Richmond - Sampling and Analysis Quality Plan

PFAS OMP

Client: Department of Defence

ABN: 68 706 814 312

Prepared by

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02-May-2023

Job No.: 60612562

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Quality Information

Document RAAF Richmond - Sampling and Analysis Quality Plan

Ref 60612562

Date 02-May-2023

[redacted]

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D	22-Nov-2019	Draft		
E	27-Apr-2021	Draft		
F	29-Oct-2021	Draft		
G	19-Nov-2021	Draft		
H	13-Apr-2022	Draft		
I	21-Oct-2022	Draft		
J	31-Oct-2022	Draft		
K	2-May-2023	Draft		

D R A F T

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Appendix A
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Well Screen Intervals and HydraSleeve Installation Depths B

D R A F T

1.0 Introduction

1.1 Preamble

AECOM Australia Pty Ltd (AECOM) has prepared this Sampling and Analysis Quality Plan (SAQP) for the per- and poly-fluoroalkyl substance (PFAS) Ongoing Monitoring Plan (OMP) at **RAAF Base Richmond** (the 'Site') comprising the Management Area (on-Site Management Area, off-Site Monitoring Area and Bakers Lagoon Management Area) in the **NSW & JBT Region** (refer to **Figure 1** in **Appendix A**).

The SAQP supports the *PFAS Ongoing Monitoring Plan – August 2019, RAAF Base Richmond* (Defence, 2019), here-in referred to as OMP (Defence, 2019a).

The purpose of the OMP is to collect data that will enable Defence to maintain an up to date understanding of the distribution, concentration, transport (migration pathways and rates) and transformation of PFAS in the Management Area.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PFAS Management Area Plan (PMAP) (Defence, 2019b).

1.2 SAQP Objectives

The objectives of this SAQP are to:

- define the proposed scope of works in detail.
- outline the proposed sampling methodology to be adopted.
- outline the proposed quality assurance and quality control (QAQC) measures to be adopted.
- define the data collection and management requirements for the project.

1.3 Scope of Works

To meet the program objectives, the following scope of works are proposed as per the OMP (Defence, 2019a):

- sampling of 69 on-Site groundwater monitoring wells and 14 off-Site groundwater monitoring wells every six months.
- sampling of 11 on-Site surface water locations and 12 off-Site surface water locations every six months.
- sampling of 10 on-Site sediment locations and 12 off-Site sediment locations every six months.
- reporting.

1.4 Guidelines and Legislation

The SAQP has been developed with reference to the following guidelines and legislation:

- Heads of Environmental Protection Agencies (HEPA), 2020. *PFAS National Environmental Management Plan (NEMP) 2.0*.
- National Environment Protection Council (NEPC), 2013. *National Environment Protection (Assessment of Site Contamination) Measure (NEPM)*
- Department of Defence, 2019. *Pollution Prevention Guideline – Annex 1L Routine Water Quality Monitoring. August 2019*
- Department of Defence, 2021. *Contamination Management Manual, August 2018 amended June 2021*

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- Department of Health (DoH), 2017. *Health Based Guidance Values for PFAS for use in site investigations in Australia. April 2017*
- National Health and Medical Research Council (NHMRC), 2019. *Guidance on PFAS in Recreational Water. August 2019*
- Standards Australia 1998. *AS/NZ 5667:1998 Water Quality – Sampling*
- Australian and New Zealand Guidelines, 2018. *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*

D R A F T

2.0 Site Identification

2.1 Site Details

The Site is an active airbase and home of several squadrons and is best known for being home to the C130 Hercules medium transport aircraft. The Site features include:

- an airfield and associated buildings
- road verges are generally unpaved
- surface drains and other water bodies on the Site and off-Site.

The Site is located in a mixed residential and agricultural setting with the township of Richmond adjacent to the western boundary of the Site and predominantly turf farms to the north-east. The Site is located within the Hawkesbury City Council Local Government Area.

In August 2019, Defence released the PMAP, which identifies the following key areas that define the Management Area:

- On-Site Management Area
- Off-Site Management Area
- Bakers Lagoon Management Area.

These areas are presented on **Figure 1** in **Appendix A**.

2.2 Conceptual Site Model

The Conceptual Site Model (CSM) is presented in the Detailed Site Investigation (DSI) (AECOM, 2018a) which summarises the linkages between sources, exposure pathways and receptors. Further assessment of risk exposure pathways are presented in the Human Health Risk Assessment (HHRA) (AECOM, 2018b) and the Ecological Risk Assessment (ERA) (AECOM, 2018c).

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3.0 Data Quality Assessment

3.1 Data Quality Objectives

The amended National Environmental Protection Measure (NEPM, 2013 Schedule B [2]) Guideline on Site Characterisation (2013) specifies that the nature and quality of the data produced in an investigation will be determined by the Data Quality Objectives (DQOs). As referenced by the NEPM, the DQO process is detailed in the United States Environmental Protection Agency (US EPA) *Guidance on Systematic Planning Using the Data Quality Objectives Process (EPA QA/G-4: EPA/240/B-06/001), February 2006.*

The US EPA defines the process as *'a strategic planning approach based on the Scientific Method that is used to prepare for a data collection activity. It provides a systematic procedure for defining the criteria that a data collection design should satisfy, including when to collect samples, where to collect samples, the tolerable level of decision errors for the study, and how many samples to collect'.*

The process of establishing appropriate DQOs is defined according to the following seven steps:

Table 1 The seven steps in defining DQOs

Step	Data Quality Objective Step
1	**State the problem** – Define the problem that necessitates the study; identify the planning team, examine budget, schedule.
2	**Identify the goal of the study** – State how environmental data will be used in meeting objectives and solving the problem, identify study questions, define alternative outcomes.
3	**Identify information inputs** – Identify data and information needed to answer study questions.
4	**Define the boundaries of the study** – Specify the target population and characteristics of interest, define spatial and temporal limits, scale of inference.
5	**Develop the analytic approach** – Define the parameter of interest, specify the type of inference, and develop the logic for drawing conclusions from findings.
6	**Specify performance or acceptance criteria** – Develop performance criteria for new data being collected or acceptable criteria for existing data being considered for use.
7	**Develop the plan for obtaining data** – Select the resource-effective sampling and analysis plan that meets the performance criteria.

The approach adopted relative to the seven steps presented above is discussed below.

3.1.1 Step 1 – State the Problem

Environmental investigations undertaken at the Site have identified PFAS in soil, sediment, surface water and groundwater primarily resulting from the historical use of aqueous film forming foam (AFFF) for fire protection purposes. The DSI (AECOM, 2018a) confirmed that the identified PFAS impacts in environmental media were not limited to within the Site boundary and appear to have migrated off-Site through a number of pathways.

Defence and State agencies require up-to-date data to assess the performance of implemented management actions and enable informed risk management decisions to protect human health and the environment, given that elevated concentrations of PFAS have been identified in environmental media.

The data collected by implementing the SAQP will provide a periodic dataset that can be used to assist with assessment of temporal changes in PFAS concentrations in groundwater and surface water/sediment on- and off-Site as well as assessing relative mass flux of pathways and how groundwater and surface water levels respond to natural fluctuations.

This will facilitate if required refinement of the CSM, allow update of the human health and ecological risk assessment and inform management decisions by Defence and NSW EPA, and possibly other government agencies.

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The OMP will cover the primary implementation period of the PMAP and continue after the response management has ended. This is the timeframe over which PMAP remediation actions (or other short-medium term actions) have been completed, and the monitoring following this period will be assessed with advice from NSW Government.

The OMP will also continue to the extent required by specific characteristics of the Management Area and behaviour of the plume, measured against specified data trends.

3.1.2 Step 2 – Identify the Goal of the Study

The overarching goal of the study is to establish a systematic routine groundwater and surface water/sediment sampling and analysis program to provide current and ongoing information on the distribution and mass flux of PFAS in groundwater, surface water and sediment in the Management Area.

Furthermore, the specific questions that the study intends to address are as follows:

- what are the changes and trends in the nature, extent and magnitude of PFAS concentrations in groundwater, surface water and sediment within the Management Area?
- has the nature, extent or magnitude of PFAS concentrations within the Management Area changes significantly to warrant a revision of the CSM and/or the HHERA?
- has the nature, extent or magnitude of PFAS concentrations changes significantly to warrant refinement of any existing or proposed management measures?

3.1.3 Step 3 – Identify Information Inputs

To allow assessment of the data against the study goal listed in Step 2 above, the following inputs will be considered:

- PFAS results from previous environmental investigations;
- meteorological data including rainfall;
- previous and new data collected during the residential sampling program, where permission to use the data has been granted by landowners;
- groundwater, surface water and sediment data collected and analysed for PFAS, as part of the SAQP;
- groundwater and surface water elevation data;
- statistical analysis of data to identify trends; and
- advances in laboratory analytical approaches and changes in regulatory requirements.

3.1.4 Step 4 – Define the Boundaries of the Study

The spatial and temporal boundaries that apply for data collection are detailed below and will influence the decision-making process for ongoing monitoring:

- the spatial boundary is limited to the Management Area, however is subject to change with input from the NSW Government (refer to **Figure 1** in **Appendix A**)
- the sampling completed as part of the SAQP will be limited to groundwater, surface water and sediment, at the frequencies defined in **Section 4.2**
- the monitoring will occur over an initial period of 3 years and continue over the 2 year extension period.

The SAQP will also cover the initial three-year Primary Implementation Period of the OMP (Defence, 2019a) and PMAP (Defence, 2019b) and continue after the response management has ended. This is the timeframe over which the PMAP remediation actions (or other short-medium term actions) have been completed, and the monitoring following this period will be assessed with advice from the NSW Government.

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The SAQP will also continue to the extent required by specific characteristics of the Site and surrounds, and behaviour of the plume, measured against specified data trends.

3.1.5 Step 5 – Develop the Analytical Approach

The decision rules can be defined as:

- analytical selection; all samples will be analysed for the extended PFAS suite and selected media (groundwater and surface water) for major cations/anions and metals
- analytical method selection for PFAS is based on achieving appropriate laboratory limit of reporting (LOR) in the various media to be analysed
- sample locations have been selected with the objective of monitoring PFAS trends (temporal and seasonal), providing early warning of changes in the migration of PFAS in the Management Area in surface water and groundwater, and to assist with refinement of Management Area boundary over time, as required
- if the laboratory quality assurance/quality control (QA/QC) data are within the acceptable ranges, the data will be considered suitable for use
- if PFAS concentrations are reported above the laboratory LOR, where it was previously <LOR, then it will be considered whether further assessment of the data will be
- if the PFAS is reported at a concentration that is above drinking water guideline in groundwater, then it will be considered that further assessment is required
- if the PFAS is reported at a concentration that is inside a trigger value or acceptable range, then it will be considered whether monitoring is continued or reduced, this assessment will be undertaken after two years of monitoring.

3.1.6 Step 6 – Specify Performance or Acceptance Criteria

Specific limits for the works included in the SAQP are in accordance with the appropriate guidance made or endorsed by state and national regulations, appropriate indicators of data quality, and standard procedures for field sampling and handling.

This step also examines the certainty of conclusive statements based on the available new data collected. This should include the following points to quantify tolerable limits:

- a decision can be made based on a certainty assumption of 95% confidence in any given data set. A limit on the decision error will be 5% that a conclusive statement may be a false positive or false negative
- a decision error in the context of the decision rule presented above would lead to either underestimation or overestimation of the risk level associated with a particular sampling area
- sampling errors may occur when the sampling program does not adequately detect the variability of a contaminant from point to point across the site. To address this, the SAQP outlines minimum numbers of samples proposed to be collected from each media
- as such, there may be limitations in the data if aspects of the SAQP cannot be implemented. Some examples of this scenario include but are not limited to:
    - proposed surface water sample locations may be dry at the time of sampling
    - proposed groundwater well locations are damaged or destroyed and therefore cannot be sampled
    - proposed samples are not collected due to access being restricted to a given location.
- limitations in ability to acquire useful and representative information from the data collected. The data are proposed to be collected from multiple locations and sample media. Some examples of this scenario include:
    - some of the data are proposed to be collected from landholder bores, which are not purpose-built for groundwater monitoring. In some cases, there is limited information on the bore

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construction, and the likely presence of dedicated pumps or windmills may prevent groundwater depths being accurately recorded while also preventing groundwater being sampled using low flow techniques.

- measurement errors can occur during sample collection, handling, preparation, analysis and data reduction. To address this the following measures are proposed:
  - collection of sufficient sample mass to facilitate analysis reported to standard laboratory detections limits. Collection of insufficient sample mass may result in raised detection limits
  - field staff to follow a standard procedure when collecting samples, including decontamination of tools, and use of appropriate sample containers and preservation methods
  - laboratories to follow a standard procedure when preparing samples for analysis and undertaking analysis
  - laboratories to report quality assurance/quality control data for comparison with the DQIs established for the project.

3.1.7 Step 7 – Optimise the Design for Obtaining Data

The methodology presented in this SAQP is designed to meet the project objectives and to achieve the nominated DQOs.

Optimisation of the data collection process will be achieved by:

- working closely with the analytical laboratories and sampling equipment suppliers to ensure that appropriate procedures and processes are developed and implemented prior to and during the fieldwork, to ensure that sample handling, and transport to and processing by the analytical laboratories is appropriate
- conducting sampling according to Defence and Australian Standards for the type of sampling being conducted (i.e. groundwater monitoring well sampling versus landholder bore water sampling). These standards are as follows:
  - Department of Defence *Contamination Management Manual* (August 2018, Amended June 2021),
  - Standards Australia (AS/NZS5667.11–1998) *Water Quality – Sampling, part 11: Guidance on sampling of groundwater,*
  - Standards Australia (AS 4482.1-2005) *Guide to the sampling and investigation of potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds.*
- conducting sampling in accordance with AECOM's internal PFAS Sample Collection Guidance
- sampling conducted by suitably qualified and experienced field staff who have completed AECOM's internal PFAS 101 Training
- basing the sampling upon a CSM developed using the information available at the implementation of the OMP (Defence, 2019a). Updating the CSM as new data becomes available in the course of the implementation of the OMP (Defence, 2019a), as required
- progressive review of the data and modification of sampling programs to optimise the value of data generated
- continually seeking to identify opportunities for refinement and optimisation of the OMP, including, but not limited to, identifying redundant locations that can be excluded from the monitoring program. This will be achieved through an six-monthly review of the SAQP.

If the OMP objectives are not being met, the sampling design and approach will be reviewed and amended, as required.

3.2 Assessment of Data Quality

The quality of data collected as part of the sampling will be assessed on a range of factors including:

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- documentation and data completeness
- data quality – comparability, representativeness, precision and accuracy of the analytical data.

The project target for data completeness is to achieve 95% of data as suitable for use.

The acceptance criteria for DQIs for samples are specified in **Table 2**.

Table 2 Acceptance Criteria for Data Quality Indicators for Sample Analysis

Data Quality Indicators	Acceptance Criteria
Water and Sediment Samples	
Rinsates (where sampling equipment is reused)	Less than the laboratory LOR.
Field duplicates/Inter-lab duplicates	The relative percentage difference (RPDs) will be assessed as acceptable if less than or equal to 30% as per the NEPM (2013 Schedule B3 – *Guideline on Laboratory Analysis of Potential Contaminated Soils*). Where the results show greater than 30% difference a review of the cause will be conducted (NEPM, 2013 Schedule B3 – *Guideline on Laboratory Analysis of Potential Contaminated Soils*).). It is noted that RPDs that exceed this range may be considered acceptable where: • results are less than 10 times the LOR (no limit) • results are less than 20 times the LOR and the RPD is less than 50% • heterogeneous materials are encountered.
Laboratory duplicates	RPDs less than: • 20% for high level laboratory duplicates (i.e. >20 x LOR) • 50% for medium level laboratory duplicates (i.e. 10 to 20 x LOR).
Matrix spikes	Recoveries between 70-130% of the theoretical recovery or as nominated in the laboratory's QC report, based on their historical database.
Method blanks	Less than the laboratory LOR.
Laboratory control samples	Recoveries between laboratories specified range for each particular analyte/analytical suite.

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4.0 Sampling Location Rationale and Methodology

4.1 OMP

The OMP (Defence, 2019a):

- identifies the specific inputs required to meet Defence's long-term strategic goals in relation to the management of PFAS contamination at the Site
- presents an overview of specific monitoring works to be undertaken
- provides the basis for the preparation of this SAQP.

This scope of works presented in this SAQP is consistent with that detailed in the OMP (Defence, 2019a), with the exception of those points of deviation presented in **Section 4.15**.

4.2 Proposed Schedule

4.2.1 Biannual Sampling

Groundwater, surface water and sediment sampling from across the Management Area will be performed on a six-monthly basis for a period of 5 years, with the initial sampling round completed in November 2019.

The schedule of fieldworks across the initial 5-year period is presented in **Table 3** below.

Table 3 Proposed Fieldwork Schedule

Sampling Round No.	Description of works	Proposed Schedule
1	Bi-annual groundwater, surface water and sediment sampling	November 2019
2	Bi-annual groundwater, surface water and sediment sampling	May 2020
3	Bi-annual groundwater, surface water and sediment sampling	November 2020
4	Bi-annual groundwater, surface water and sediment sampling	May 2021
5	Bi-annual groundwater, surface water and sediment sampling	November 2021
6	Bi-annual groundwater, surface water and sediment sampling	May 2022
7	Bi-annual groundwater, surface water and sediment sampling	November 2022
8	Bi-annual groundwater, surface water and sediment sampling	May 2023
9	Bi-annual groundwater, surface water and sediment sampling	November 2023
10	Bi-annual groundwater, surface water and sediment sampling	May 2024

4.3 Sample Location Rationale

4.3.1 Groundwater Sampling Locations

Groundwater monitoring will be undertaken on selected monitoring wells. The rationale for monitoring well selection for each area is summarised in **Table 4** below.

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Table 4 Rationale for Groundwater Monitoring Locations

Area	Rationale
On-Site	• The DSI (AECOM, 2018a) identified temporal data as a data gap. To address this data gap, monitoring of spatial and temporal variations in PFAS concentrations in groundwater concentrations up, down and cross-gradient of source areas is required. Where the proposed management action is to implement management options at other source areas and to review the requirement for remediation or management when those outcomes are understood a higher sample density is required • Assess if groundwater PFAS concentrations within and downgradient of the source areas change in response to management measures over time • Continue to monitor wells to develop temporal datasets to assist with better understanding of temporal patterns in PFAS concentrations • Monitor groundwater on transects parallel and perpendicular to plume to assist with understanding concentrations changes in the nominated transect alignments • Assess if background conditions change over time.
North of Site	• Continue to monitor groundwater wells with existing temporal datasets to assist with better understanding of temporal patterns in PFAS concentrations • Monitor potential changes in PFAS concentrations at the plume margins to refine model predictions and provide an indication of additional management of PFAS to groundwater users outside the current plume • Monitor groundwater on transects parallel and perpendicular to the plume, to assist with understanding concentration changes in the nominated transect alignments • Continue to monitor wells to develop temporal datasets to assist with better understanding of temporal patterns in PFAS concentrations • Sampling of 11 additional groundwater monitoring wells (MW004, MW106, MW107D, MW0107I, MW108, MW109, MW110, MW111, MW112, MW113 and MW114) to provide additional groundwater mass flux data.
West and north west of Site	• Monitor potential changes in PFAS concentrations at the plume margins to refine model predictions and provide an indication of additional management of PFAS to groundwater users outside the current plume • Monitor groundwater wells on transects parallel and perpendicular to plume, to assist with understanding concentrations changes in the nominated transect alignments • Continue to monitor wells to develop temporal datasets to assist with better understanding of temporal patterns in PFAS concentrations •
East of Site	• Monitor groundwater wells on transects parallel and perpendicular to plume, to assist with understanding concentrations changes in the nominated transect alignments • Continue to monitor wells to develop temporal datasets to assist with better understanding of temporal patterns in PFAS concentrations.
Cupitts Lane	• Monitor the plume to the north of the Site and in the Cuppitts Lane area • Monitor groundwater adjacent to Cooleys Creek where an isolated detection of PFAS in groundwater has been reported and is considered to be associated with surface water infiltration • Monitor potential changes in PFAS concentrations at the plume margins • Continue to monitor wells to develop temporal datasets to assist with better understanding of temporal patterns in PFAS concentrations • Monitor groundwater on transects parallel and perpendicular to plume, to assist with understanding concentrations changes in the nominated transect alignments.

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Off-site monitoring locations will require the agreement of the landholder/leaseholder.

4.3.2 Groundwater Sampling Locations

The groundwater locations to be monitored on a six-monthly basis are provided in **Table 5** below and are presented on **Figure 2** in **Appendix A**.

Table 5 Groundwater Sample Locations

Area	Description	Sampling Locations	Number of wells/ bores	Total
On Site	West of Site (including Airfield Former Fire Ground/Training Ground)	MW008, MW009, MW010, MW040, MW041	5	69 Locations
	Airfield Foam Cannon Testing Area and Surrounds	MW030, MW053, MW054, MW056, MW057, MW058, MW059, MW107D, MW107I, MW108	10	
	Airfield Flight Line (including Fire Station, Building 291)	MW007, MW024, MW025, MW026, MW027, MW028, MW042, MW043	8	
	Site Infrastructure (including Hangar 54)	MW045, MW046, MW060, MW061, MW062, MW063, MW064, MW065, MW066, MW067, MW068, MW069, MW070, MW071	14	
	East of Site (including Tanker Parking Area and Former Fuel Farm 1)	MW047, MW048, MW050, MW051, MW052, MW072, MW073, MW074	8	
	Sewage Treatment Plant and Surrounds	MW020, MW021, MW022, MW023, MW036, MW109, MW110	7	
	Fuel Farm 2	MW032, MW033, MW034	3	
	Rickabys Drop Zone	MW001, MW002, MW004, MW005, MW012, MW013, MW014, MW015, MW016, MW017, MW111, MW112, MW113, MW114	14	
Off Site	West of Site	MW075, MW076, MW077, MW078, MW081	5	14 Locations
	North-west of Site	MW079, MW080, MW082, MW106	4	
	North-east of Site	MW143 and MW144	2	
	East of Site	MW086, MW091, MW092	3	

4.3.3 Surface Water Sampling Locations

The surface water monitoring locations have been selected to build on and maintain consistency with the monitoring completed during the 2018 DSI (AECOM, 2018a). Many of the locations have been previously sampled several times, and continued monitoring will provide additional data to assess temporal variability. The locations to be monitored on a six monthly basis are provided in **Table 6** below and are presented on **Figure 3** (in **Appendix A**).

Cooleys Creek is proposed to be monitored at SW016 downstream of Bakers Lagoon (known impacted area). No other identified PFAS sources would enter Cooleys Creek downstream of this point. As such

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SW016 will adequately represent the concentration of PFAS from Cooleys Creek entering the Hawkesbury during when Cooleys Creek flows.

Rickabys Creek is to be monitored at two locations downstream of the confluence of other known impacted drains, as such, these locations adequately represent the concentration of PFAS in Rickabys Creek entering the Hawkesbury.

Location SW030 will capture any overall changes in concentration at locations up-stream of this point and therefore represents all impacts originating from the Site when compared with monitored concentrations at SW024 (representing background/up-stream PFAS concentrations). Given Cooleys Creek and Rickabys Creek are adequately represented by sample locations, and the Hawkesbury is monitored both up- and downstream of these creeks, it is not considered to be necessary that other DSI sample locations in between SW024 and SW030 be sampled, unless an increase in concentration is observed in Cooleys or Rickabys Creek.

Table 6 Surface Water Sampling Locations

Area	Description	Sampling Locations	Number of Locations	Total
On Site	North-west of Site (including STP discharge point)	SW001, SW002, SW003, SW037	4	11 Locations
	North-east of Site (including tributary of Rickabys Creek)	SW005, SW007, SW014	3	
	East of Site (including Rickabys Creek)	SW008, SW009, SW011, SW013	4	
Off Site	West of Site	SW022, SW024, SW035	3	12 Locations
	North of Site	SW015, SW016, SW081, SW085	4	
	East of Site	SW018, SW019, SW023, SW030	4	
	South of Site	SW020	1	

4.3.4 Sediment Sampling Locations

The sediment sample locations have been selected to be collocated with surface water sample locations[1] and to maintain consistency with the monitoring completed during the 2018 DSI (AECOM, 2018a). Many of the locations have been previously sampled several times, and continued monitoring will provide additional data to assess temporal variability. The locations to be monitored on a six-monthly basis are provided in **Table 7** below and are presented on **Figure 4** (in **Appendix A**).

Table 7 Sediment Sample Locations

Area	Description	Sampling Locations	Number of Locations	Total
On Site	North-west of Site (including STP discharge point)	SD001, SD002, SD003	3	10 Locations
	North-east of Site (including tributary of Rickabys Creek)	SD005, SD007, SD014	3	
	East of Site (including Rickabys Creek)	SD008, SD009, SD011, SD013	4	
Off Site	West of Site	SD022, SD024, SD035	3	12 Locations
	North of Site	SD015, SD016, SD081, SD085	4	
	East of Site	SD018, SD019, SD023, SD030	4	
	South of Site	SD020	1	

[1] Sediment samples will be collected at all surface water locations, with the exception of SW037 at the STP Settlement Pond.

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4.4 Sample Collection and Handling

4.4.1 Groundwater Sampling

The groundwater sampling methodology and schedule are presented in **Table 8**.

Table 8 Groundwater Sampling Methodology and Schedule

Item	Details
Groundwater gauging	The depth to groundwater will be measured in each monitoring well prior to collection of groundwater samples. Additionally, during the Autumn(May) sampling event a gauging round of selected locations will be conducted prior to groundwater sampling to enable groundwater contours to be developed. The depth to groundwater will also be measured at the time of sampling at each location.
Sample Collection Methodology	**Groundwater Monitoring Wells** Groundwater samples will be collected from monitoring wells using no purge methodology with HydraSleeves™ which will be installed within the screened interval of the wells a minimum of 24 hours prior to sampling for the initial sampling round. Once sampling is completed, new HydraSleeves™ will be deployed at the screened interval depth in preparation for the next six-monthly sampling round. In the event that a HydraSleeve™ fails to deploy or has been removed inadvertently (i.e. by non-OMP project), the sample will be collected using a dedicated disposable bailer. Please refer to **Table T1** in **Appendix B** for well screen intervals and proposed HydraSleeve™ installation depths.
QA/QC Samples to be Collected	Field QA/QC samples are to include intra-laboratory duplicate and inter-laboratory duplicate samples (i.e. splits) and rinsate samples.
Field Parameters	Temperature, electrical conductivity (EC), dissolved oxygen (DO), ORP (oxidation-reduction potential), pH and observations of water quality will be recorded for all samples.
Sample Analysis	All primary samples will be submitted for PFAS extended suite using the standard levels of detection.
Sampling Schedule	The monitoring will include two 6 monthly monitoring events of 84 groundwater locations.

4.4.2 Surface Water Sampling

Table 9 provides the surface water sampling methodology and schedule.

Table 9 Surface Water Sampling Methodology and Schedule

Item	Details
Sample Collection Methodology	Samples to be collected from immediately below the water surface to minimise collection of sediment or floating materials in the samples. At each location, a new, laboratory supplied container should be lowered into the water with the cap immediately applied once the container is full.
QA/QC Samples to be Collected	Field QA/QC samples are to include intra-laboratory duplicate and inter-laboratory duplicate samples (i.e. splits) and rinsate samples.
Field Parameters	Temperature, Electrical Conductivity (EC), DO, ORP (oxidation-reduction potential), pH and observations of water quality will be recorded for all samples.
Sample Analysis	All primary samples will be submitted for PFAS extended suite using the standard levels of detection.

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Item	Details
Sampling Schedule	The monitoring will include 6 monthly monitoring events at the selected 22 locations.

4.4.3 Sediment Sampling

Table 10 below provides the sediment sampling methodology and schedule.

Table 10 Sediment Sampling Methodology and Schedule

Item	Details
Sample Collection Methodology	Samples representative of potentially deposited sediments to be collected from within the water body if possible. Sediment samples will be collected using a hand auger from the base of the drain (where it is safe to do so) or using a Dormer Piston Sediment Sampler where access is restricted. At each location, a new laboratory supplied container should be used for each sample.
QA/QC Samples to be Collected	Field QA/QC samples are to include intra-laboratory duplicate and inter-laboratory duplicate samples (i.e. splits) and rinsate samples.
Sample Analysis	All primary samples will be submitted for PFAS extended suite using the standard levels of detection.
Sampling Schedule	The monitoring will include bi-annual monitoring events at all 21 locations.

4.4.4 Sample Handling and Transport to Laboratory

AECOM personnel will attempt to reduce potential heterogeneity in the sample media matrix by dividing the sample collected between primary and intra-laboratory jars or bottles during sampling. All samples will be placed on ice in eskies immediately after sampling.

All samples will be kept, if possible, at approximately 4°C during transit to the laboratory. Prior to sampling, assessment of the analytical holding times will be made and the sampling planned accordingly to ensure that holding times are not breached or minimised.

Samples will be transported directly to the laboratory for analytical testing under standard chain of custody (CoC) procedures. Primary and associated duplicate QA/QC samples will be analysed by Australian Laboratory Services Pty Ltd (ALS). The inter-laboratory duplicate samples will be analysed by the Envirolab Group Pty Ltd (Envirolab).

4.5 Calibration

The water quality meter will be calibrated each day prior to the commencement of field activities with relevant solutions, including pH, EC and ORP. The calibration will be in accordance with manufacturers' instructions or NATA publication "General Requirements for Registration: Supplementary Requirement: Chemical Testing (NATA 1993) and Technical Note No. 19 (NATA 1994)". Where satisfactory calibration cannot be achieved, the water quality data will not be used for interpretive purposes.

Calibration details will be recorded on field sheets and included in the Sampling Events Factual Reports.

4.6 Logistics

The laboratory sample containers will be shipped from the laboratory to the AECOM office in Sydney prior to the commencement of fieldwork. All primary samples will be transported by an ALS supplied courier at the completion of fieldwork. All inter-laboratory duplicate samples will be couriered directly to the secondary laboratory under a separate CoC for analysis.

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4.7 Analytical Suite and Laboratory Analysis Methods

4.7.1 Laboratory NATA Accreditation Details

The laboratory is required to use NATA accredited methods based on NEPM, US EPA, Table B 15 of the US Department of Defence/Department of Energy (US DOD/DoE) and American Society for Testing and Materials (ASTM) methods as appropriate.

The primary and secondary laboratories selected for this program are ALS (NATA Accreditation Number 825) and Envirolab (NATA Accreditation Number 2901), respectively.

4.7.2 Analytical Schedule

All media sampled shall be analysed for the extended PFAS suite as outlined in **Table 11** below.

Table 11 Sample Analytical Suite for PFAS

PFAS Group	Compound	CAS No.
Perfluoroalkyl Sulfonic Acids	Perfluorobutane sulfonic acid (PFBS)	375-73-5
	Perfluoropentane sulfonic acid (PFPeS)	2706-91-4
	Perfluorohexane sulfonic acid (PFHxS)	355-46-4
	Perfluoroheptane sulfonic acid (PFHpS)	375-92-8
	Perfluorooctane sulfonic acid (PFOS)	1763-23-1
	Perfluorodecane sulfonic acid (PFDS)	335-77-3
Perfluoroalkyl Carboxylic Acids	Perfluorobutanoic acid (PFBA)	375-22-4
	Perfluoropentanoic acid (PFPeA)	2706-90-3
	Perfluorohexanoic acid (PFHxA)	307-24-4
	Perfluoroheptanoic acid (PFHpA)	375-85-9
	Perfluorooctanoic acid (PFOA)	335-67-1
	Perfluorononanoic acid (PFNA)	375-95-1
	Perfluorodecanoic acid (PFDA)	335-76-2
	Perfluoroundecanoic acid (PFUnDA)	2058-94-8
	Perfluorododecanoic acid (PFDoDA)	307-55-1
	Perfluorotridecanoic acid (PFTrDA)	72629-94-8
	Perfluorotetradecanoic acid (PFTeDA)	376-06-7
Perfluoroalkyl Sulfonamides	Perfluorooctane sulfonamide (FOSA)	754-94-6
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	2448-09-7
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6
(n:2) Fluorotelomer Sulfonic Acids	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4

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PFAS Group	Compound	CAS No.
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0

The current standard laboratory limits of reporting (LOR) are described in **Table 12** below.

Table 12 Laboratory Limits of Reporting

Sample Media	Parameter	Technique/Method Reference	LOR*
Groundwater and Surface Water	Extended PFAS Suite	LC/MS-MS	0.002 – 0.1 micrograms per litre (µg/L)
Sediment	Extended PFAS Suite	LC/MS-MS	0.0002 – 0.001 milligrams per kilogram (mg/kg)

LC/MS-MS = Liquid chromatography–mass spectrometry, GC = Gas chromatography

*LOR for Australian Laboratory Services (ALS)

4.8 Sample Nomenclature

In order to meet Defence data management requirements, a consistent sample nomenclature has been adopted for the Program. All primary samples will be labelled using the following naming convention:

PPPP_XX000_ZZZ_YYMMDD

[property ID][type of sample][THREE DIGIT sample number]_[top of sample depth]_[yearmonthday]

e.g. 0902_MW001_191015

Location types and codes are prescribed by the Defence Contamination Management Manual, Annex L Data Management (June 2021) and the Site's investigation history.

Primary Sample Types/Location Codes relevant to this SAQP include:

- SD = sediment – top depth required
- MW = monitoring well
- SW = surface water - no depth required.

QAQC Samples will be labelled in accordance with the following convention:

- Duplicate: PPPP_QC1XX_YYMMDD
- Triplicate: PPPP_QC2XX_YYMMDD
- Rinsate: PPPP_QC3XX_YYMMDD.

4.9 Defence ESdat Requirements

Defence has contracted Earth Science Information Systems (EScIS), to provide contamination data management services through a cloud instance of its ESdat product.

All SAQP field and laboratory data collected by AECOM will be uploaded, stored and managed in Defence's ESdat database in accordance with Section 6 of Annex L to the Defence Contamination Management Manual. AECOM will refer to historical investigation data to ensure consistent location codes are used to enable analysis of data trends. Where required under Annex L, non-compliant location codes will be resolved under direction from Defence.

AECOM will upload the data from each monitoring event into ESdat prior to submitting the Sampling Event Factual Report.

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4.10 Adopted Screening Criteria

Adopted screening criteria references national guidance in the form of the PFAS National Environmental Management Plan, Defence estate and environmental strategies, and Defence PFAS-specific strategies and guidance.

At the time of preparing this SAQP, a number of guidance documents were in circulation in Australia including:

- PFAS National Environmental Management Plan (NEMP), (HEPA 2020) https://www.awe.gov.au/environment/protection/publications/pfas-nemp-2 .
- Department of Health (DoH), 2017. Health Based Guidance Values for PFAS for use in site investigations in Australia. April 2017 (FSANZ 2017).
- National Health and Medical Research Council (NHMRC), 2019. Guidance on PFAS in Recreational Water. August 2019 (NHMRC 2019).
- National Environment Protection (Assessment of Site Contamination) Measure 1999, Schedule B1, as amended in 2013 (ASC NEPM).

The adopted PFAS screening criteria to assess the data generated as part of the SAQP are presented in **Table 13**.

4.10.1 PFAS Screening Criteria

The adopted screening criteria which have been adopted are presented in **Table 13** and **Table 14** below.

Table 13 Summary of Adopted Screening Criteria

Pathway	Compound	Criteria	Comment/Reference
Drinking water - groundwater	PFOS+ PFHxS	0.07 µg/L	The values presented in the PFAS NEMP, 2020 are from DoH 2017, which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH utilised the tolerable daily intake (TDI) for PFOS and PFOA from FSANZ, 2017 and the methodology described in Chapter 6.3.3 of the National Health and Medical Research Council's (NHMRC) Australian Drinking Water Guidelines (ADWG), 2022 to determine drinking water values. For PFHxS, DoH 2017 noted that '*FSANZ concluded that there was not enough toxicological and epidemiological information to justify establishing a tolerable daily intake. However, as a precaution, and for the purposes of site investigations, the PFOS tolerable daily intake should apply to PFHxS. In practice, this means that the level of PFHxS exposure should be added to the level of PFOS exposure; and this combined level be compared to the tolerable daily intake for PFOS*'. *All groundwater results will be compared to these criteria.*
	PFOA	0.56 µg/L	
Recreational use – surface water	PFOS + PFHxS	2 µg/L	In August 2019, NHMRC released guidance on the assessment of PFAS in surface water. Rather than adopting an ingestion rate of 0.2 litres (L) of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year. The revised recreational use criteria presented in NHMRC have been adopted by the PFAS NEPM 2.0 (HEPA, 2020) *All surface water results will be compared to these criteria.*
	PFOA	10 µg/L	

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Table 14 PFAS criteria summary: Ecological

Media	Pathway	Chemical	Criteria	Comment/Reference
Water	Freshwater	PFOS	0.00023 µg/L	HEPA (2020) NEMP 99% species protection
		PFOA	19 µg/L	HEPA (2020) NEMP 99% species protection

Note: HEPA (2018) notes that the 99% species protection level for PFOS is close to the level of detection. Agencies may wish to apply a 'detect' threshold in such circumstances rather than a quantified measurement.

4.11 Waste Management

Due to the proposed "no purge" sampling methodology, it is not anticipated that significant volumes of liquid waste would be generated that would require management or disposal.

All consumables (i.e. HydraSleeves™, filter cartridges, general rubbish) will be bagged and placed in on-site general waste bins for disposal.

4.12 Quality Assurance/Quality Control Sampling

4.12.1 Field Duplicate and Inter-laboratory Duplicate Samples

Field duplicate (intra-laboratory) duplicate samples and split (inter-laboratory field duplicates) are to be collected and analysed at a minimum frequency of 1 in 10 primary samples.

4.12.2 Rinsate Samples

Where there is the potential for cross contamination to occur between sampling locations. rinsate samples are to be collected at a rate of one sample per fieldwork day or at least one rinsate sample per ten primary samples (whichever rate is lower) by pouring laboratory supplied deionised water over the decontaminated sampling equipment.

4.13 Fieldwork Documentation

4.13.1 Field Notes

Field notes will be maintained to record all field sampling events and include observations made at each sample location. Field notes will include information specific to the sample media as follows:

- groundwater Samples – comments on the observed characteristics of the sample (e.g. colour, turbidity, odour, sheen) and reported field water quality parameters (pH, EC, DO, ORP, temperature) will be recorded at regular intervals
- surface Water Samples – comments on the observed characteristics of the sample (e.g. colour, turbidity, odour, sheen) and field water quality parameters (pH, EC, DO, ORP, temperature) will be recorded
- sediment Samples – comments on the morphology of the sample location, the depth, flow direction and strength of water flow (if water is present), the water and sediment/soil colour and odour, and the presence of flora and fauna. The soil/sediment types observed at each sample location will be described using the Unified Soil Classification System (USCS).

The geo-coordinates for each sample location will be noted. The location of quality control (e.g. duplicate and inter-laboratory duplicate) sample collection points will also be noted.

AECOM's tablet-based Environmental Data Collection and Analysis ('EDCA') tool will be utilized by field staff to capture consistent field data based on project specific requirements, minimise potential data transcription errors, allow on-the-spot identification of potentially erroneous data in comparison to historical data and facilitate efficient data transfer to multiple data systems including Esdat.

4.13.2 Sample Labels

Sample containers will be labelled, as a minimum, with the following information:

D R A F T

- AECOM project number
- name of sampler
- sample ID
- date of sample collection
- filtered vs non-filtered (for water samples only).

An indelible felt pen will be used for labelling, to ensure that the lettering is not erased during transit to the laboratory.

AECOM will utilize the tablet-based EDCA tool to streamline sample labelling and CoC creation to ensure compliant sample IDs are used in the field.

4.13.3 Chain of Custody Forms

A CoC form will be completed, documenting the sample identification number and analytes. The CoC documents the chain of events from sample collection to delivery at the laboratory and provides a traceable account of sample handling. The CoC form will be signed by both the sample collector and the receiving laboratory.

The CoC form will include the following information:

- job number (Note: the name of the site is not identified for confidentiality purposes)
- date and time of sample collection
- sample ID
- type of containers
- name of sampler
- laboratory to be used
- analyses required
- any comments
- signatures of the sampler and laboratory receiver.

In the event that additional samples are collected during the field investigations due to observations made by the Field Team, (i.e. samples not proposed in this SAQP), Defence will be provided the rationale for collection of those samples and proposed laboratory analyses. Defence approval will be sought to include these samples on the CoC and to dispatch these samples to the laboratory.

Upon receipt of the original documents accompanying the samples at the laboratory, the laboratory will provide a sample receipt document (noting the temperature of samples upon receipt, analyses required and any non-conformances) and return the signed CoC form to confirm analyses to be performed and the due date for the analytical results.

4.13.4 Sampling Documentation

Field sampling sheets will be completed for each location, and will include the following information (as appropriate for the media being sampled):

- name of sampler
- sample location
- date/time of monitoring/sampling
- sampling method
- observations of the sampled media
- calibration records.

Records of all equipment calibration will be included in the Sampling Event Factual Reports.

D R A F T

4.14 Reporting

4.14.1 Sampling Event Factual Report

No later than four weeks following the completion of each biannual sampling event, AECOM will prepare and submit a Sampling Event Factual Report to Defence. Each Sampling Event Factual Report will include:

- details of the scope of monitoring completed
- a description of the sampling methodologies used
- a summary of observations made while sampling (e.g. any visual or olfactory observations that may indicate impacts to surface water or groundwater)
- a summary of any changes to the monitoring network condition that may affect data integrity, or require rectification works, and recommendations for repair, replacement of decommissioning of a location
- a presentation of the analysis results in a table that includes comparisons with PFAS guidelines, highlighting any significant statistical deviations from historical monitoring and investigation data
- a presentation of the reduced groundwater levels for the event on a figure with inferred contours and inferred groundwater flow direction
- discussion of the analytical data quality, including review of the quality control sampling results and laboratory quality control data
- inclusion of the following information as attachments:
    - groundwater sampling forms including field water quality parameter measurements:
        - chain of custody forms
        - laboratory analytical certificates
        - equipment calibration certificates.

Factual reports will be prepared in accordance with Defence OMP Factual Report Guidance (May 2021).

4.14.2 Annual Interpretive Report

At the end of each 12-month monitoring period, AECOM will prepare and submit an Annual Interpretive Report to Defence. Each Interpretive Report will include:

- evidence of compliance with the requirements of the SAQP and meeting stated objectives of the OMP (Defence, 2019a)
- relevant figures depicting sampling locations and site-specific hydrogeological features
- laboratory results and analysis including comparison with relevant screening criteria as identified in the OMP (Defence, 2019a)
- assessment and commentary on appropriate QA/QC procedures
- a review of the Conceptual Site Model and provision of a revised Conceptual Site Model if required
- data interpretation, including trends in groundwater concentration, gradient and flow directions
- assessment of statistically based trends that may inform decision making when it comes to the revision of the OMP (Defence, 2019a)
- a statement as to whether the risk profile has changed overall, or for any specific location at the Site, and a recommendation as to whether this should trigger an OMP and/or PMAP review, or other action.

D R A F T

Additionally, an assessment of available mass flux data collected during the 12-month monitoring period (likely to be undertaken as part of a separate program of works to the PFAS OMP) will also be included if the data is available at the time of reporting.

Interpretive reports will be prepared in accordance with Defence OMP Interpretive Report Guidance (November 2021).

4.15 Deviations from OMP

While the scope of works and methodology described in this SAQP are generally consistent with that presented in the OMP (Defence, 2019a), a number of points of deviation are noted (refer to **Table 15** below).

Table 15 Deviations from OMP

No.	Description	Rationale
1	Use of HydraSleeves™ rather than low flow/bladder pumps for the collection of groundwater samples	The OMP (Defence, 2019a) specified that groundwater samples were to be collected using low flow sampling equipment (bladder pump). As part of AECOM's tender submission for the Defence OMP Program in March 2019, it was proposed to complete groundwater sampling across all Defence regions utilising no-purge HydraSleeves™. In addition to time and cost saving considerations, the adoption of HydraSleeves™ across the broader program was aimed to improve consistency, quality and comparability of groundwater data across sites and regions. In the event that a HydraSleeve™ fails to deploy or has been removed inadvertently (i.e. by non-OMP project), the sample will be collected using a dedicated disposable bailer.
2	Download of data loggers to occur on a six-monthly basis	The OMP (Defence, 2019a) specified that data loggers were to be downloaded on a 3 monthly-basis. In order to streamline the download of the data with other Site activities, a download of the logger data was undertaken during the biannual groundwater sampling events (every 6 months) from November 2019 to May 2021.
3	Adoption of Revised Recreational Screening Criteria for PFOS+PFHxS and PFOA	Following the release of the OMP (Defence, 2019a) in August 2019, the National Health and Medical Research Council (NHMRC), published guidance on PFAS in Recreational Water. The adopted screening criteria for PFOS+PFHxS and PFOA in surface water have therefore been revised to 2 µg/L and 10 µg/L, respectively. This is reflected in **Table 13**.
4	SW/SD040 and SW/SD041	In November 2019, AECOM was instructed by Defence to omit residential sampling locations SW/SD040 and SW/SD041 from the OMP program due to sensitivities with the landowner
5	Removal of Mass Flux Assessment from OMP Program	In November 2019, Defence instructed AECOM to remove activities related to the assessment of mass flux at the Site from the OMP as these will be completed under a separate program of works (PMAP Implementation Contract).
6	Removal of MW019	In November 2019, AECOM was unable to locate monitoring well MW019 in Rickaby's Drop Zone and noted that it was likely that this well had been destroyed due to the presence of PVC

D R A F T

No.	Description	Rationale
		pipe fragments in the general vicinity. Given that nearby monitoring wells MW015 and MW016 provide sufficient coverage of the area, AECOM recommended that this location be removed from the OMP in the November 2019 Sampling Event Factual Report.
7	Removal of MW029	AECOM was unable to locate monitoring well MW029 during the November 2019, May 2020 and November 2020 sampling events. Given that the existing monitoring well network provides sufficient coverage of this area, AECOM recommended the removal of MW029 from the OMP in the November 2020 Sampling Event Factual Report
8	Non-PFAS Analysis	On 27 January 2021, Defence instructed AECOM to discontinue the analysis of samples for non-PFAS analytes unless it was specifically requested in the OMP, or approved by Defence.
9	Removal of collection of continuous water level data	In consultation with the Lead Consultant (AECOM), it was agreed that the requirement to collect continuous water level data at seven ground water loggers and four surface water level loggers for a minimum period of 12 months has been fulfilled. The continuous water level logger data collected between November 2019 and May 2021 was considered to provide a sufficiently representative data set for the purposes of the OMP, and can now be discontinued. Therefore, this task has been removed from the updated SAQP.
10	POT001 and POT002 replaced with MW120 and MW121	During the May 2021 sampling event, private property bores POT001 and POT002 were observed to have been decommissioned by the property owner. The property owner informed AECOM that they had replaced these bores with two new bores (denoted as MW120 and MW121) that had been installed to depths of 16.81 m bgs and 17.31 m bgs (respectively). As discussed, and agreed with Defence on 7 May 2021, private bore locations POT001 and POT002 have been removed from the OMP scope of works and replaced with MW120 an MW121.
11	Collocated Surface Water and Sediment Location (SW081 / SD081)	As presented to the NSW TAG on 27 October 2021, a new collocated surface water and sediment sample (denoted as SW081 / SD081) has been added to the OMP scope. The rationale for this new location is to assess concentrations of PFAS leaving Bakers Lagoon to the north via an ephemeral tributary that flows beneath Cornwallis Road before discharging to the Hawkesbury River.
12	Residential Bore Sampling Methodology	Given that during May 2020, no infrastructure (i.e. taps) was connected to private property bores MW120 and MW121, the proposed sampling methodology detailed in Table 9 has been amended to reference either low flow sampling or bailer sampling.
13	Ratio of Intra- and Inter-laboratory duplicates	To align with the guidance presented in the HEPA NEMP 2.0 (2020), the target ratio of intra- and inter-laboratory duplicate samples has been amended to be 1 per 10 primary samples.

D R A F T

No.	Description	Rationale
14	11 additional monitoring wells added to OMP scope	On 11 November 2021, Defence requested that AECOM add 11 additional groundwater monitoring wells (MW004, MW106, MW107D, MW0107I, MW108, MW109, MW110, MW111, MW112, MW113 and MW114) to the OMP scope of works to be sampled on a biannual basis for PFAS. The addition of these monitoring wells to the OMP is in response to a recommendation made in AECOM (2021) *RAAF Richmond PFAS Mass Flux – October 2021*. The purpose of monitoring these wells is to provide additional groundwater mass flux data.
15	Three additional monitoring wells added to OMP scope	On 19 November 2021, Defence requested that AECOM add three additional groundwater monitoring wells (MW117, MW118 and MW119) to the OMP scope of works to be sampled on a biannual basis for PFAS. The addition of these monitoring wells to the OMP is in response to a recommendation made in AECOM (2020) *RAAF Richmond Former Fire Training Ground (FFTG) Remedial Action Plan (RAP) – October 2021.* The purpose of monitoring these wells is to assess the effectiveness of the remedial activities undertaken at the FFTG in 2021.
16	Removal of MW006 and MW099	During the November 2021 OMP sampling event, monitoring wells MW006 and MW099 were observed to have been destroyed and were unable to be sampled. AECOM recommended that these locations be removed from the OMP, as the existing monitoring well network provides sufficient coverage in these areas.
17	Removal of MW117, MW118 and MW119	Monitoring wells MW117, MW118 and MW119 (located on-site, airside) were compromised by surface water ingress in 2021. AECOM received direction from Defence (correspondence dated 24 May 2022) to remove these wells from the OMP scope of works.
18	Removal of MW095	Given that the existing monitoring well network provides sufficient coverage in this area, AECOM recommended in the *Sampling Event Factual Report – May 2022* that this location be removed from the OMP scope of works
19	Removal of MW120, MW121, SW032 and SD032	Due to access restrictions, AECOM recommended in the *Sampling Event Factual Report – May 2022* that these private property locations be removed from the OMP scope of works
20	Addition of one new collocated surface water/sediment location: SW085 and SD085	Following the removal of collocated surface water/sediment sampling locations SW032/SD032 from the OMP in 2022, Defence instructed AECOM to assess alternate access arrangements to Bakers Lagoon to collect surface water and sediment data. In February 2023, access to Bakers Lagoon for the purposes of sampling has been secured under an access agreement with a local resident.
21	MW097 and MW098 replaced with MW143 and MW144	Monitoring wells MW097 and MW098 were unable to sampled during the November 2022 sampling event, as they could not be located despite multiple attempts being made and the use of a surveyor with a differential GPS. Both wells are likely to have been destroyed during the floods proceeding the sampling event. The lack of data from this area presents a data gap in the off-site coverage of the down-hydraulic extent of the identified PFAS groundwater plume. As such, AECOM has

D R A F T

No.	Description	Rationale
		proposed the replacement of these monitoring wells with new wells of similar construction. New monitoring wells MW143 and MW144, installed on 26 April 2023, will replace MW097 and MW098 (respectively) in the OMP scope of works, from the May 2023 sampling event.
22	Removal of monitoring well MW044	In the November 2022 Sampling Event Factual Report, AECOM recommended the removal of monitoring well MW044 from the OMP as it could not be located during the November 2022 event despite the assistance of a metal detector and a surveyor using a differential GPS. It is considered likely that the well was destroyed during base redevelopment works. Following discussions with Defence's Lead Consultant and given that there are a number of other existing monitoring wells nearby being sampled under the OMP (e.g. MW045 and MW46), AECOM considered that the remaining well network provides sufficient coverage of this area.
23	Removal of additional non-PFAS data analysis	The additional analysis part of the original scope of works included: nutrients (ammonia, nitrate, nitrite, phosphorous), selected metals (aluminium, bromine, iron and manganese), and anions and cations. In the previous revision of the SAQP (Rev J) this analysis was to be scheduled for samples from monitoring wells MW001, MW009, MW010, MW022, MW075, MW081 MW082, MW091, MW097 and MW098, and surface water sampling locations SW003, SW008, SW009, SW015, SW016, SW020, SW022, SW023, SW024 and SW035. The original objective for conducting the additional analysis was to identify potential correlation between PFAS and non-PFAS concentrations, in order to identify any significant off-site contributions to PFAS concentrations from agriculture or heavy industries. Sufficient non-PFAS data was collected during the initial OMP implementation period (a three year period) and no correlation was found based on the data collected to date. As such, the requirement to collect and analyse non-PFAS data was re-assessed in conjunction with Defence's current Lead Consultant (AECOM) and was determined no longer necessary. Following the review of the *Sampling Event Factual Report – November 2022*, on 17 March 2023, Defence approved of the removal of the non-PFAS data analysis requirement.

D R A F T

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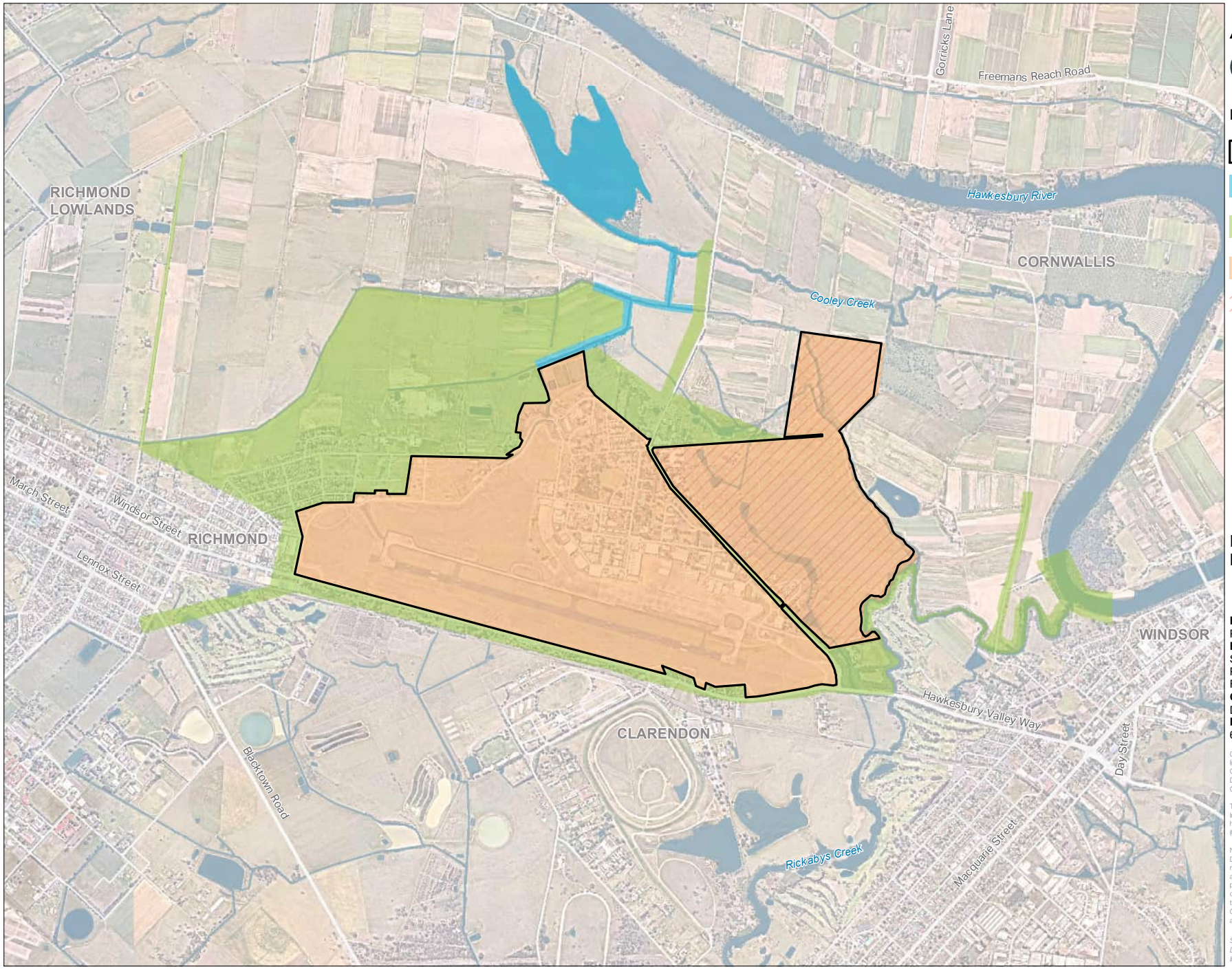
Appendix A

Figures



AECOM

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0 300 600 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

FIGURE 1:
MANAGEMENT AREAS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling and Analysis Quality Plan
PFAS OMP
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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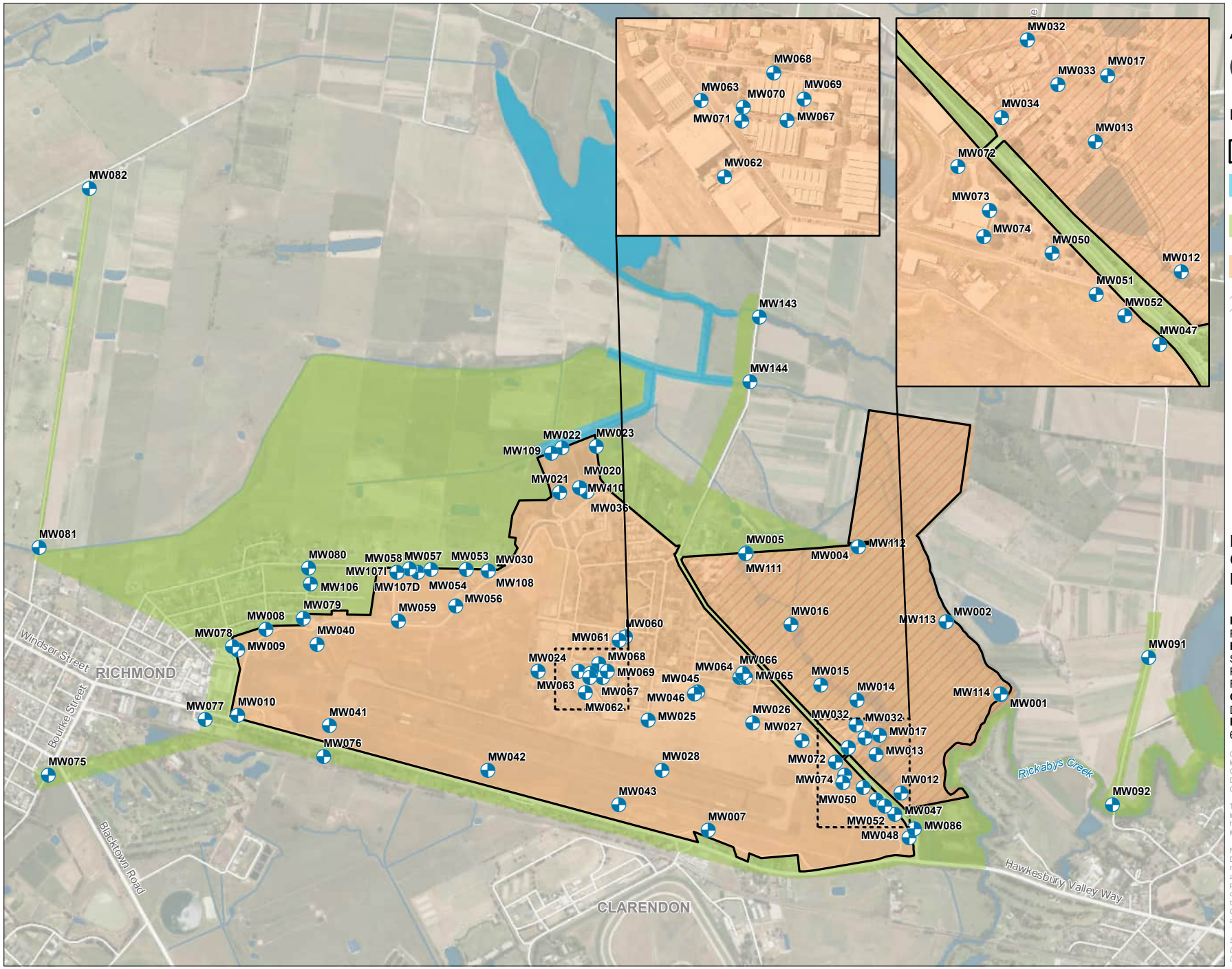

AECOM

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Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Sample Location

FIGURE 2: GROUNDWATER SAMPLE LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling and Analysis Quality Plan
PFAS OMP
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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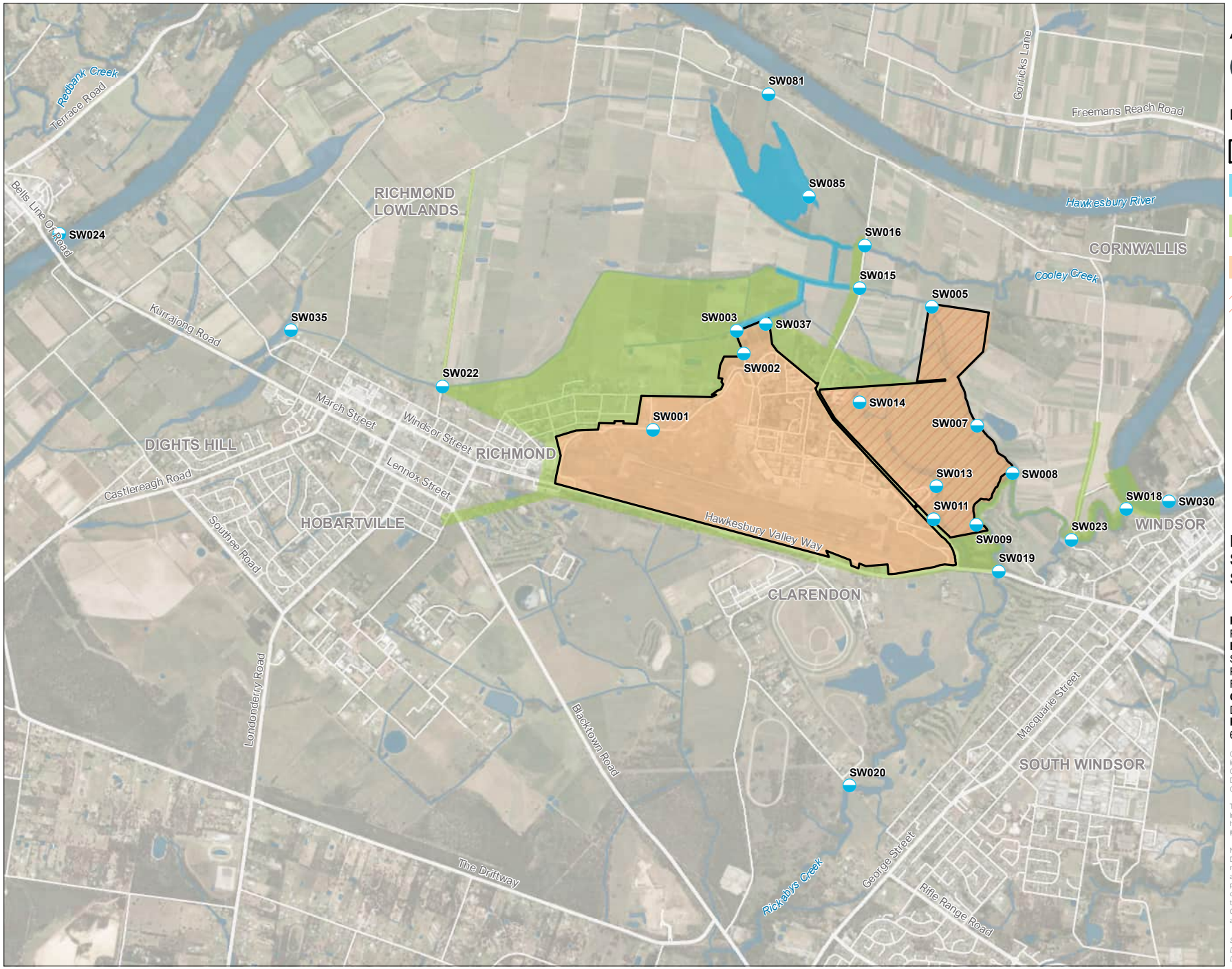

AECOM

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Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Surface Water Sample Location

FIGURE 3: SURFACE WATER SAMPLE LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling and Analysis Quality Plan
PFAS OMP
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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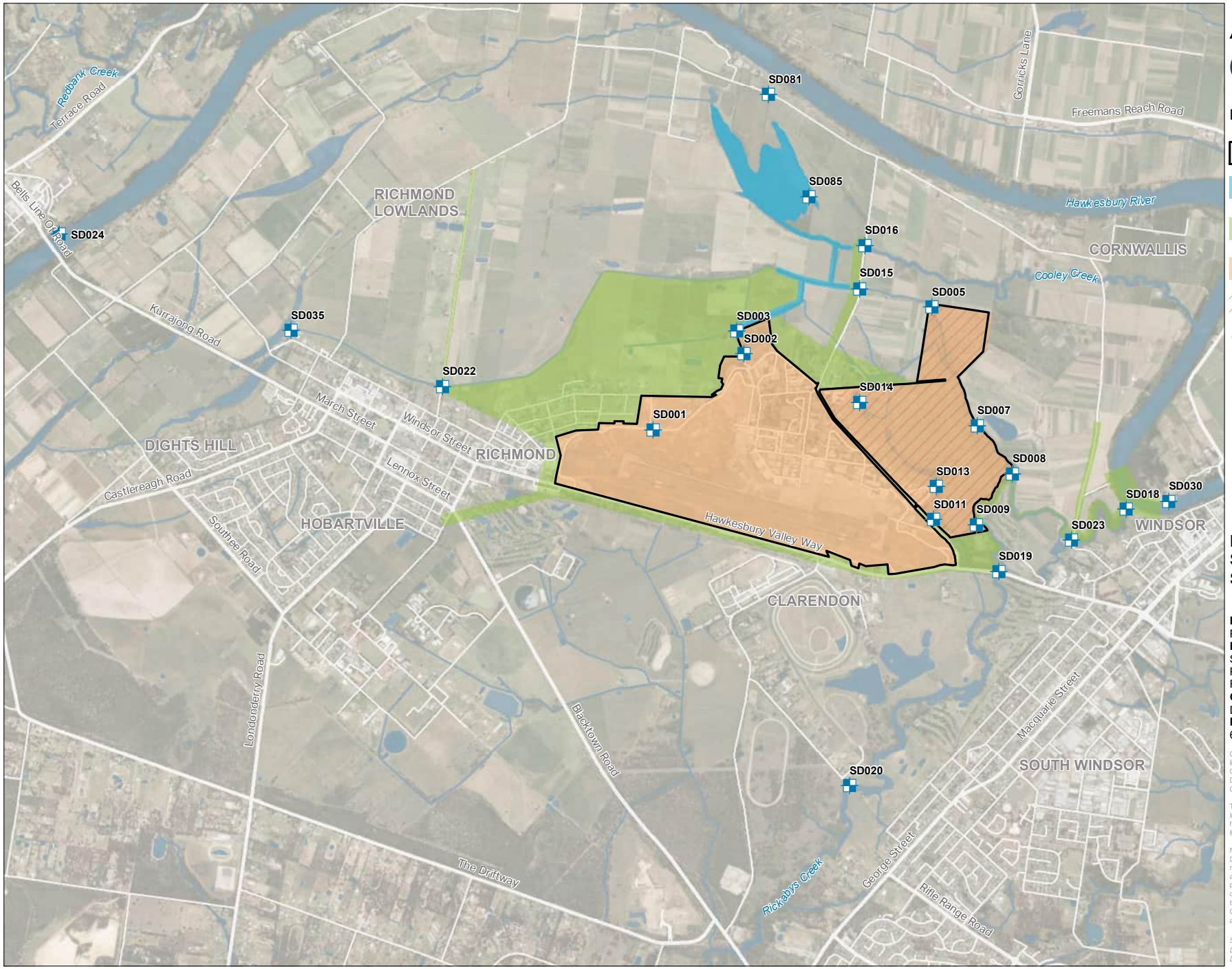

AECOM

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0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Sediment Sample Location

FIGURE 4: SEDIMENT SAMPLE LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling and Analysis Quality Plan
PFAS OMP
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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Appendix B

Well Screen Intervals and HydraSleeve Installation Depths

AECOM

Table T1
Well and HydraSleeve Installation Details

Location ID	Historical Name	Easting	Northing	Top of Casing (TOC) Elevation (m AHD)	Screen Interval (mbTOC)	Base of Well (mbTOC)	HydraSleeve Collar Depth (mbTOC)
MW001	MW01	296233.04	6279804.88	10.1	5.5 - 8.5	9	8
MW002	MW02	295984.34	6280136.03	9.89	5.9 - 8.9	9	8
MW004	MW04	295579.62	6280480.79	7.277	9 - 12	12	11
MW005	MW05	295067.61	6280452.91	9.13	unknown	10	9
MW007	MW07	294894.00	6279186.70	16.03	8.8 - 11.8	12	11
MW008	MW08	292873.00	6280103.90	20.93	12 - 15	18	17
MW009	MW09	292744.26	6280009.08	20.44	unknown	13	12
MW010	MW10	292745.20	6279711.70	21.06	17.9 - 20.9	21	20
MW012	MW12	295777.41	6279355.85	6.64	1 - 4	4	3
MW013	MW13	295662.37	6279530.47	7.93	4 - 7	7	6
MW014	MW14	295575.28	6279777.44	6.24	5.3 - 8.3	8	7
MW015	MW15	295409.76	6279849.44	7.02	5.5 - 8.5	9	8
MW016	MW16	295272.46	6280125.90	7.39	2 - 5	5	4
MW017	MW17	295678.47	6279619.81	6.51	unknown	6	5
MW020	MW20	294314.00	6280748.00	-	unknown	7	6
MW021	MW21	294215.84	6280730.08	7.88	unknown	4	3
MW022	MW22	294227.04	6280931.01	6.03	unknown	3	2
MW023	MW23	294382.96	6280940.34	6.01	unknown	3	2
MW024	MW24	294117.34	6279910.89	19.92	12 - 15	15	14
MW025	MW25	294621.57	6279687.69	17.14	16.1 - 20.1	20	19
MW026	MW26	295097.99	6279676.01	16.9	9.2 - 12.2	12	11
MW027	MW27	295323.49	6279596.00	16.42	10.2 - 13.2	13	12
MW028	MW28	294683.43	6279460.90	16.9	8.2 - 11.2	11	10
MW030	MW30	293890.76	6280372.74	21.27	12.5 - 17.5	18	17
MW032	MW32	295570.79	6279666.90	17.81	9.5 - 12.5	15	14
MW033	MW33	295611.96	6279607.38	14.84	10 - 13	15	14
MW034	MW34	295536.17	6279563.44	16.93	14 - 17	13	12
MW036	MW36	294341.38	6280732.64	19.82	17.8 - 21.8	22	21
MW040	MW40	293108.30	6280034.90	19.52	15 - 18	18	17
MW041	MW41	293163.80	6279663.60	19.73	13.6 - 16.6	17	16
MW042	MW42	293889.10	6279460.60	18.32	13.3 - 16.3	16	15
MW043	MW43	294486.50	6279300.80	16.45	14.9 - 17.9	18	17
MW044	MW44	294869.10	6279808.69	16.85		18	17
MW045	MW45	294847.41	6279816.81	16.74	14.9 - 17.9	18	17
MW046	MW46	294833.10	6279808.08	16.71	14.9 - 17.9	18	17
MW047	MW47	295748.70	6279257.80	13.78	9 - 12	12	11
MW048	MW48	295812.20	6279149.50	17.62	10.3 - 13.3	14	13
MW050	MW50	295604.23	6279379.99	10.2	unknown	9	8
MW051	MW51	295663.28	6279324.95	10.3	1.5 - 4.5	5	4
MW052	MW52	295701.56	6279296.13	10.71	6 - 9	9	8
MW053	MW53	293790.55	6280376.09	20.95	13.5 - 16.5	18	17
MW054	MW54	293568.72	6280364.70	24.31	14.9 - 17.9	18	17
MW056	MW56	293740.76	6280210.80	19.39	11.5 - 16.1	16	15
MW057	MW57	293629.71	6280377.10	22.92	14.2 - 19.2	19	18
MW058	MW58	293530.23	6280380.80	22.83	14.7 - 19.2	19	18
MW059	MW59	293480.72	6280140.40	20.74	14.7 - 19.2	19	18
MW060	MW60	294517.20	6280068.47	17.89	12.8 - 15.8	15	14
MW061	MW61	294487.93	6280054.99	18.39	10.5 - 13.5	13	12
MW062	MW62	294332.60	6279813.60	18.91	11.5 - 14.5	15	14
MW063	MW63	294303.00	6279910.70	19.62	12 - 14.5	15	14
MW064	MW64	295039.63	6279884.38	17.86	10.2 - 14.2	15	14
MW065	MW65	295065.19	6279885.15	17.95	10 - 13	13	12
MW066	MW66	295053.17	6279900.81	18.03	11 - 15	15	14
MW067	MW67	294412.10	6279885.90	18.6	11.7 - 14.7	25	24
MW068	MW68	294395.30	6279946.10	19.05	11.9 - 14.9	20	19
MW069	MW69	294434.20	6279913.30	19.03	13 - 16	16	15
MW070	MW70	294356.89	6279902.05	19.4	2.3 - 5.3	5	4
MW071	MW71	294354.36	6279884.54	19.15	2 - 5	5	4
MW072	MW72	295477.00	6279497.00	-	unknown	13	12
MW073	MW73	295520.00	6279438.00	-	10 - 13	13	12
MW074	MW74	295512.00	6279403.00	-	10 - 14	14	13
MW075	MW75	291878.55	6279437.87	18.097	12 - 15	15	14
MW076	MW76	293138.22	6279523.00	19.54	15 - 18	18	17
MW077	MW77	292595.26	6279690.93	19.942	19.5 - 22	22	21
MW078	MW78	292720.36	6280025.38	19.807	15 - 18	18	17
MW079	MW79	293044.51	6280152.83	20.453	15 - 18	18	17
MW080	MW80	293069.22	6280381.90	22.791	21 - 24	24	23
MW081	MW81	291836.88	6280475.99	7.376	2.6 - 5.6	6	5
MW082	MW82	292067.34	6282119.95	8.781	3 - 6	6	5
MW086	MW86	295837.01	6279191.36	10.387	3.6 - 6.6	6.6	5.6
MW091	MW91	296907.80	6279975.91	8.345	3.5 - 6.5	7	6
MW092	MW92	296742.33	6279302.07	8.995	19 - 22	22	21
MW097	MW97	295131.85	6281570.71	6.465	4.3 - 7.3	7.3	6.3
MW098	MW98	295088.44	6281236.79	5.511	5.8 - 8.8	9	8
MW106	MW106	293077.19	6280311.86	22.866	28 - 31	31	30
MW107D	MW107D	293474.00	6280364.70	23.079	27.5 - 30.5	31	30
MW107I	MW107I	293471.20	6280364.50	22.964	21.3 - 24.8	24.8	23.8
MW108	MW108	293891.20	6280370.59	21.443	24.5 - 27.5	28	27
MW109	MW109	294177.70	6280908.04	6.345	10.4 - 13.4	14	13
MW110	MW110	294307.98	6280751.11	7.738	11.5 - 14.5	16	15
MW111	MW111	295066.71	6280451.22	9.489	16 - 19	19	18
MW112	MW112	295582.24	6280480.95	6.92	12.2 - 15.2	17	16
MW113	MW113	295982.00	6280136.51	9.548	16 - 19	20	19
MW114	MW114	296230.83	6279805.78	9.808	16.1 - 19.1	20	19

Notes

mbTOC Meters below top of casing

mAHD Meters Australian Height Datum

AECOM

Department of Defence
08-Jul-2021

Sampling Event Factual Report, May 2021

PFAS OMP - RAAF Base Richmond

Sampling Event Factual Report, May 2021

PFAS OMP - RAAF Base Richmond

Client: Department of Defence

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List of Acronyms

Abbreviation	Term
ADWG	Australian Drinking Water Guidelines
AECOM	AECOM Australia Pty Ltd
AHD	Australian Height Datum
ASC NEPM	Assessment of Site Contamination National Environment Protection
CSM	Conceptual Site Model
Defence	Department of Defence
DO	Dissolved Oxygen
DoH	Department of Health
EC	Electrical conductivity
HEPA	Heads of Environment Protection Authority
LOR	Limit of Reporting
MW	Monitoring Well
NEMP	National Environmental Management Plan
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OMP	Ongoing Monitoring Program
ORP	Oxidation Reduction Potential
PFAS	Per- and poly-fluoroalkyl substances
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control
RAAF	Royal Australian Air Force
SAQP	Sample and Analysis Quality Plan
SW	Surface Water
SWL	Standing Water Level

Units	Term
g	Grams
km	Kilometre
L	Litres
m	Metre
mbtoc	Metres below top of casing

Units	Term
mg/kg	Milligrams per kilogram
µg/L	Micrograms per Litre

1.0 Introduction

1.1 General

AECOM Australia Pty Ltd (AECOM) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Program (OMP) at the RAAF Base Richmond (the 'Site') in the NSW and Jervis Bay Region. The location of the Site and Management Area is shown in **Figure 1** in **Appendix A**.

The OMP (Defence, 2019a) for the Site outlines the requirement to complete biannual groundwater, surface water and sediment sampling.

Following each sampling event, a sampling event factual report will be prepared. Annual interpretative reports will be prepared following the completion of each 12-month sampling period. This Sampling Event Factual Report has been prepared to report the results of the biannual sampling event completed in May 2021, specifically highlighting first time detections and/or first-time exceedances of human health screening criteria for PFOS+PFHxS and/or PFOA.

This reported has been prepared in accordance with the Defence *PFAS OMP Factual Report Guidance,* Version 0.2 dated May 2021 (Defence, 2021).

1.2 Objectives

The objectives of the OMP program are to:

- Implement the Ongoing Monitoring Plan (Defence, 2019a) prepared as part of the Detailed Environmental Investigations; and
- Collect data that will enable Defence to maintain an up to date understanding of the distribution, concentration, transport and transformation of PFAS at each property.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PFAS Management Area Plan (PMAP) (Defence, 2019b).

The objective of this phase of works is to implement the scope of works for the May 2021 sampling event in accordance with the Sampling and Analysis Quality Plan (SAQP) (AECOM, 2021).

2.0 Scope of Work

2.1 Summary of Scope

The biannual sampling event was completed in general accordance with the SAQP (AECOM, 2021). In summary, the scope of works completed included:

- Obtain permission (where required) to conduct works at the Site, off-site publicly accessible areas and privately owned properties
- Gauging of groundwater level in monitoring wells prior to collection of samples (refer to **Table 1** below, and **Figure 2** in **Appendix A** for specific locations)
- Collection of groundwater samples from 76 existing monitoring wells using either Hydrasleeves™ or dedicated, disposable bailers. It is noted that samples from four monitoring locations could not be collected during this sampling event (refer to **Table 9** for more details)
- Collection of 22 surface water samples (refer to **Table 2** below, and **Figure 3** in **Appendix A** for specific locations) and refer to **Table 11** for further details
- Collection of 19 sediment samples (refer to **Table 3** below, and **Figure 4** in **Appendix A** for specific locations). It is noted that sediment samples from two locations could not be collected during this sampling event (refer to **Table 13** for further details)
- Collecting of field duplicate samples at a rate of 1 in 20 primary samples and collecting one rinsate sample per fieldwork day
- Collection of data from four surface water level loggers, eight groundwater level loggers and one barometric logger installed in November 2019 (refer to **Table 4** below and **Figure 2** in **Appendix A** for specific locations). It is noted that one groundwater level logger (MW099) was unable to be retrieved (refer to **Table 9** for further details)
- Analysis of samples for the following:
  - all samples for the PFAS suite at the standard limit of reporting (LOR).
  - 20% of groundwater and surface water samples for nutrients (ammonia, nitrate, nitrite, phosphorous) and selected metals (aluminium, bromide, iron and manganese)
- Data management of the OMP field and laboratory data in Defence ESdat database
- Preparation of this Sampling Event Factual Report.

2.2 Planned Monitoring Locations

The monitoring locations outlined within the SAQP (AECOM, 2021) for the planned biannual groundwater, surface water and sediment sampling events are outlined in **Table 1**, **Table 2** and **Table 3** below.

Table 1 Groundwater Sampling Locations

Area	Description	Sampling Locations	Number of wells/ bores	Total
On Site	West of Site (including Airfield Former Fire Ground/Training Ground)	MW008, MW009, MW010, MW040, MW041	5	62 Locations
	Airfield Foam Cannon Testing Area and Surrounds	MW030, MW053, MW054, MW056, MW057, MW058, MW059	7	

Area	Description	Sampling Locations	Number of wells/ bores	Total
	Airfield Flight Line (including Fire Station, Building 291)	MW007, MW024, MW025, MW026, MW027, MW028, MW042, MW043	8	
	Site Infrastructure (including Hangar 54)	MW044, MW045, MW046, MW060, MW061, MW062, MW063, MW064, MW065, MW066, MW067, MW068, MW069, MW070, MW071	15	
	East of Site (including Tanker Parking Area and Former Fuel Farm 1)	MW047, MW048, MW050, MW051, MW052, MW072, MW073, MW074	8	
	Sewage Treatment Plant and Surrounds	MW020, MW021, MW022, MW023, MW036	5	
	Fuel Farm 2	MW032, MW033, MW034	3	
	Rickabys Drop Zone	MW001, MW002, MW005, MW006*, MW012, MW013, MW014, MW015, MW016, MW017, MW095	11	
Off Site	West of Site	MW075, MW076, MW077, MW078, MW081	5	18 Locations
	North west of Site	MW079, MW080, MW082, MW120**, MW121**, POT001*, POT002*	7	
	North East of Site	MW097, MW098, MW099*	3	
	East of Site	MW086, MW091, MW092	3	

Note: *Location not sampled. Refer to **Table 9** for further details

Alternative residential groundwater bore location sampled. Refer to **Table 9 for more details

Table 2 Surface Water Sampling Locations

Area	Description	Sampling Locations	Number of Locations	Total
On Site	North west of Site (including STP discharge point)	SW001, SW002, SW003, SW037	4	11 Locations
	North east of Site (including tributary of Rickabys Creek)	SW005, SW007, SW014	3	
	East of Site (including Rickabys Creek)	SW008, SW009, SW011, SW013	4	
Off Site	West of Site	SW022, SW024, SW035	3	11 Locations
	North of Site	SW015, SW016, SW032	3	
	East of Site	SW018, SW019, SW023, SW030	4	
	South of Site	SW020	1	

Table 3 Sediment Sampling Locations

Area	Description	Sampling Locations	Number of Locations	Total
On Site	North west of Site (including STP discharge point)	SD001, SD002, SD003	3	10 Locations
	North east of Site (including tributary of Rickabys Creek)	SD005, SD007, SD014	3	
	East of Site (including Rickabys Creek)	SD008, SD009, SD011, SD013	4	
Off Site	West of Site	SD022, SD024, SD035	3	11 Locations
	North of Site	SD015, SD016, SD032	3	
	East of Site	SD018*, SD019, SD023*, SD030	4	
	South of Site	SD020	1	

Note: *Location not sampled. Refer to **Table 13** for further details

The locations of continuous groundwater and surface water level loggers are outlined in **Table 4**, below.

Table 4 Continuous Water Level Logger Locations

Continuous Level Logger Group	Primary Rationale	Level Logger Locations	Site Specific Rationale
Groundwater Hydraulic Gradients	Evaluate hydraulic gradients at key areas.	MW040 and MW099*	Evaluate the hydraulic gradient between the Former Fire Training Area and Cupitts Lane.
		MW050 and MW001	Evaluate the hydraulic gradient between the Tanker Parking Area and Rickabys Creek.
Receiving Environment (SW & GW paired locations)	Interpret groundwater and surface water interactions at major receiving water bodies. Provide an indication of the antecedent conditions when PFAS sampling rounds occur. Provide an indication of the source of PFAS at the time of sampling. i.e. from groundwater (gaining conditions) or surface water (losing conditions).	MW001 and SW008	Paired surface water and groundwater well location closest to Rickabys Creek. Downstream of surface water discharge point east of the Site. Will provide an indication of surface water levels downstream from onsite management actions.
		MW081 and SW022	Paired surface water and groundwater well location closest un-named tributary of Rickabys Creek. MW081 is located close to the western edge of the groundwater plume.
		MW097 and SW016	Paired surface water and groundwater well location closest to Cooleys Creek. MW097 has an isolated detection.

Continuous Level Logger Group	Primary Rationale	Level Logger Locations	Site Specific Rationale
		MW098 and SW015	Paired surface water and groundwater well location closest to Un-named tributary of Rickabys Creek. Downstream of surface water discharge point north of the Site. Will provide an indication of surface water levels downstream from onsite management options.

*Note. Data logger not retrieved as the monitoring well appeared to have sustained damage during widespread flooding in March 2021, and the logger was not present within the well at the time of sampling.

3.0 Deviations from the SAQP

The May 2021 sampling event was completed in general accordance with the SAQP (AECOM, 2021) with the exception of the deviations outlined in **Table 5** below.

Table 5 Deviations from SAQP (AECOM, 2021)

SAQP	May 2021 Sampling Event
78 groundwater locations are identified to be sampled as part of the biannual sampling event	Residential groundwater bores POT001 and POT002 were decommissioned by the property owner prior to the May 2021 sampling event and could not be sampled. As an alternative, the field team collected samples from two newly installed bores on the property (denoted as MW120 and MW121). Monitoring well MW006 (located in Rickabys Drop Zone) appeared to have sustained damage during the recent flooding in March 2021. The well cap was missing and the top of casing was submerged beneath pooled surface water (indicating that the integrity of the well was compromised), therefore no samples were collected. Monitoring well MW099 (located off-Site along Cupitts Lane) appeared to have sustained damage during the recent flooding in March 2021. The entire well gatic had been cleaved in two and the well cap was missing, enabling surface water ingress. The data logger installed in this well in November 2019 could not be located. No sample was collected.
Groundwater samples are to be collected using hydrasleeves™ deployed prior to the sampling event	Grab samples were collected using dedicated, disposable bailers from residential groundwater bores MW120 and MW121 as it was not practical to deploy hydrasleeves™ at these locations. Groundwater samples at MW033, MW045, MW074 were collected using dedicated, disposable bailers as the hydrasleeves™ failed to deploy.
Following the completion of the sampling event, new hydrasleeves™ are to be deployed ahead of the next scheduled event.	HydraSleeves™ were not replaced in 24 monitoring wells (MW005, MW006, MW007,MW009, MW010, MW020, MW032, MW033, MW041, MW043, MW047, MW050, MW051, MW052, MW053, MW056, MW057, MW058, MW059, MW060, MW061, MW072, MW073 and MW078) following sampling as these locations are due to be sampled by the Defence EMOS contractor completing the Regional Water Quality Monitoring Program (RWQMP) event before the next scheduled OMP sampling event in November 2021. New HydraSleeves™ will be installed in these wells prior to the November 2021 OMP sampling event.
21 sediment locations are identified to be sampled as part of the biannual sampling event	Due to bank instability issues resulting from the recent flooding in March 2021 it was determined that sediment samples could not be collected from locations SD018 and SD023 due to safety concerns.
Surface water samples are to be collected by lowering a laboratory supplied container into the water with the cap immediately applied once the container is full.	Due to safety and access considerations, surface water samples were collected using dedicated disposable bailers from SW018 and SW023.

4.0 Methodology

4.1 Sampling Methodology

The methodology adopted for the May 2021 biannual sampling event was in accordance with the SAQP (AECOM, 2021) and summarised below:

Table 6 Sampling Methodology

Item	Details
Groundwater gauging	The depth to groundwater (in metres below top of casing [m btoc]) was measured in each monitoring well immediately prior to collection of groundwater samples using an interface probe, with the exception of MW006 and MW099. In MW006, the depth to water (in m btoc) could not be accurately measured as the surveyed top of the PVC casing of the monitoring well had been broken at ground level. At MW099, the gatic cover had been damaged and the well open to surface water ingress, resulting in pooled water above to top of casing.
Field parameters	Temperature, electrical conductivity (EC), dissolved oxygen (DO), oxidation-reduction potential (ORP), pH and observations of water quality were recorded for all groundwater and surface water samples with the exception of MW028, where there was insufficient water present to collect parameters. Field parameters were collected using a calibrated water quality meter (WQM), with equipment supplier and field calibration records provided in **Appendix C**.
Sampling methodology-	Groundwater samples were collected from the majority of monitoring wells using no-purge methodology (i.e. HydraSleeves™), which were installed within the screened interval of the wells greater than 24hrs prior to the sampling round. Installation depths were based on a review of the well construction logs. Once sampling was completed, new HydraSleeves™ were deployed in the majority of monitoring wells at the screened interval depth in preparation for the next sampling round. Grab samples were collected from newly identified alternative residential sampling locations MW120 and MW121 using dedicated, disposable bailers. A grab sample was collected from MW033, MW045 and MW074 using dedicated, disposable bailers as the hydrasleeves™ failed to deploy. Additionally, HydraSleeves™ were not replaced in monitoring wells MW005, MW006, MW007, MW009, MW010, MW020, MW032, MW033, MW041, MW043 MW047, MW050, MW051, MW052, MW053, MW056, MW057, MW058, MW059, MW060, MW061, MW072, MW073 and MW078 as they are due to be sampled by the Defence EMOS contractor completing the RWQMP event before the next scheduled OMP sampling event in November 2021. New HydraSleeves™ will be installed in these wells prior to the November 2021 OMP sampling event. The majority of surface water samples were collected by lowering a laboratory supplied container below the water surface to minimise collection of sediment or floating materials in the samples. At each location, a new, laboratory supplied container was lowered into the water with the cap immediately applied once the container was full. At SW018 and SW023, the samples were collected using dedicated, disposable bailers, before being decanted into laboratory supplied bottles. Sediment samples were collected using a trowel from the base of the drain. At each location, a new laboratory supplied container was used to collect the sample. The trowel was decontaminated between sampling locations using a detergent (Liquinox® solution, a PFAS-free detergent) followed by a double rinse with laboratory supplied de-ionised (PFAS free) water.

Item	Details
QA/QC Samples	Field QA/QC samples collected included intra-laboratory duplicate and inter-laboratory duplicate samples (i.e. splits) and rinsate samples. Refer to **Appendix D** for assessment of QA/QC sample data.
Sample analysis	Samples were submitted to the primary and secondary laboratories for analysis detailed in **Section 2.0**. ALS Environmental (ALS) Sydney, NSW was used as the primary laboratory. The National Measurement Institute (NMI) of Sydney, NSW was used as the secondary laboratory. ALS and NMI methods for analyses were certified by the National Association of Testing Authorities (NATA). Laboratory certificates are presented in **Appendix E**.

4.2 Adopted Screening Criteria

Adopted screening criteria references national guidance in the form of the PFAS National Environmental Management Plan, Defence estate and environmental strategies, and Defence PFAS-specific strategies and guidance. Guidance documents used to assess the dataset includes the following:

- PFAS National Environmental Management Plan 2.0 (NEMP), (HEPA 2020) (https://www.environment.gov.au/protection/publications/pfas-nemp-2)
- Department of Health (DoH), 2017. Health Based Guidance Values for PFAS for use in site investigations in Australia. April 2017 (FSANZ 2017).
- National Health and Medical Research Council (NHMRC), 2019. Guidance on PFAS in Recreational Water. August 2019 (NHMRC 2019).
- National Environment Protection (Assessment of Site Contamination) Measure 1999, Schedule B1, as amended in 2013 (ASC NEPM).

The adopted screening criteria which have been adopted are presented in **Table 7** below.

Table 7 Summary of Adopted Screening Criteria

Pathway	Compound	Criteria	Comment/Reference
Human Health Receptors			
Drinking water - groundwater	PFOS + PFHxS	0.07 µg/L	The values presented in the PFAS NEMP, 2020 are from DoH 2017, which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH utilised the TDI for PFOS and PFOA from FSANZ, 2017 and the methodology described in Chapter 6.3.3 of the National Health and Medical Research Council's (NHMRC) Australian Drinking Water Guidelines (ADWG), 2016 to determine drinking water values. For PFHxS, DoH 2017 noted that '*FSANZ concluded that there was not enough toxicological and epidemiological information to justify establishing a tolerable daily intake. However, as a precaution, and for the purposes of site investigations, the PFOS tolerable daily intake should apply to PFHxS. In practice, this means that the level of PFHxS exposure should be added to the level of PFOS exposure; and this combined level be compared to the tolerable daily intake for PFOS*'.
	PFOA	0.56 µg/L	
Recreational use – surface water	PFOS + PFHxS	2 µg/L	In August 2019, NHMRC released guidance on the assessment of PFAS in surface water. Rather than adopting an ingestion rate of 0.2 L of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year.
	PFOA	10 µg/L	
Ecological Receptors			
Freshwater (99% species protection values)	PFOS	0.00023 µg/L	The values are from the PFAS NEMP, 2020 which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality – draft default guideline values. AECOM understands that these guidelines are currently being reviewed and will consider the appropriateness of considering any future revision. The 99% level of protection has been applied for slightly to moderately disturbed ecosystems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. For the purposes of preliminary screening of analytical water results, the laboratory LOR will be adopted rather than sole use of the criteria value.
	PFOA	19 µg/L	

4.3 Data Quality Objectives and Data Validation

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2021).

Data validation assessment is provided in **Appendix D**.

Data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

All data collected during this event has been reviewed and uploaded to the Defence ESdat database in accordance with Defence Contamination Management Manual (DCMM) requirements.

5.0 Field Observations and Results

5.1 General Field Observations

The following field observations were applicable across the entirety of the sampling event.

Table 8 General Field Observations

Items	Observations
Weather Conditions	During the May 2021 sampling event, the weather in general was observed to be partly cloudy and cool to moderate temperature with a maximum daily temperature of 24.9˚C recorded on Monday, 3 May 2021. 49.6 mm of rainfall was recorded between 3 and 7 May 2021 at RAAF Base Richmond (Richmond RAAF NSW, 067105) (Bureau of Meteorology, 2021).
Estate Management Works or Training Activities	During the sampling event, no notable estate works, or training activities were observed in the vicinity of the sampling locations with the exception of the following: • Excavation and stabilisation of PFAS impacted soils being completed at the Former Fire Training Ground (near MW040) in the western portion of the Site. The works were being undertaken by Synergy Resource Management (Synergy) and being supervised by AECOM.

5.2 Groundwater Observations and Field Measurements

Table 9 Groundwater Observations and Field Measurements

Compound	Criteria
Fieldwork Dates	The groundwater sampling was completed between 3 and 7 May 2021.
Access and Sample Collection	All monitoring wells and bores were accessible and able to be sampled with the exception of the following: • Private bore samples POT001 and POT002 could not be collected as the owner of the private property had decommissioned them • Monitoring well MW006 and MW099 were observed to be damaged with visible surface water ingress and were not sampled
Monitoring Well Network Condition	MW006 and MW099 were observed to be damaged with missing and/or broken caps and gatics. Due to visible surface water ingress, these wells were not sampled
Contamination Observations	No visible indications of contamination were observed during the sampling.
Continuous Water Level Data Loggers	Data was retrieved from four surface water level loggers, seven groundwater level loggers and one barometric logger installed in November 2019. Data could not be retrieved from the data logger previously installed in MW099 as the monitoring well appeared to have sustained damage during widespread flooding in March 2021, and the logger was not present within the well at the time of sampling.

Compound	Criteria
Depth to Groundwater and flow direction	Depth to groundwater ranged from 0.11 (MW013) and 17.355 (MW054) m btoc. Groundwater elevations in the aquifer were between 3.333 (MW033) and 15.42 (MW071) m AHD. Groundwater gauging data is presented in **Table T1** in **Appendix B**. Inferred groundwater contours and groundwater flow directions at the site in May 2021 are shown on **Figure 3** in **Appendix A**. The inferred local groundwater flow direction is towards the north and northeast with mounding observed in the vicinity of Hangar 54 and in the eastern corner of the Site, which was generally consistent with the DSI (AECOM, 2018), and flow directions observed during previous PFAS OMP monitoring events.
Geochemical Parameters	Groundwater geochemical parameters were measured prior to collecting groundwater samples. The stabilised readings are presented in **Table T1** in **Appendix B**, and are summarised below: • Dissolved oxygen ranged from 0.79 mg/L (MW092) to 9.43 mg/L (MW014) indicating relatively poorly to well oxygenated conditions • Electrical conductivity ranged from 67.4 µS/cm (MW022) to 20,873 µS/cm (MW005) indicating fresh to saline conditions • pH ranged from 5.68 (MW020) to 8.92 (MW015) indicating slightly acidic to alkaline conditions • Corrected Redox ranged from 113 mV (MW043) to 320 mV (MW020) indicating reducing conditions.

5.2.1 PFAS Groundwater Analytical Results

The PFAS groundwater analytical results from this sampling event are presented in **Table T2** in **Appendix B**. In summary, PFAS compounds were reported at concentrations above the laboratory LOR in 64 of the 76 primary groundwater samples analysed. Concentrations of PFOS+PFHxS and/or PFOA exceeded the adopted human health criteria in 57 of the primary groundwater samples analysed.

Deviations from the historical dataset are provided in **Table 10** below and graphically on **Figure 6** in **Appendix A**.

Table 10 Deviations from Historical Groundwater Dataset

Deviation Type	Monitoring wells/bores	PFOS+PFHxS concentration (µg/L) May 2021	Historical maximum PFOS+PFHxS concentration (µg/L)	PFOA concentration (µg/L) May 2021	Historical maximum PFOA concentration (µg/L)
First time detections of PFOS+PFHxS and/or PFOA in groundwater	MW120	0.02	No historical data available	<0.01	No historical data available
	MW121	0.02	No historical data available	<0.01	No historical data available
First time exceedance of the NEMP (HEPA, 2020) drinking water guidelines	MW042	**0.194**	0.04	<0.02	<0.01

Legend	
Bold	Bold text indicates existing detection or exceedance of NEMP Human Health Screening Criteria
Blue Shading	Blue shading indicates sampling location with first time detection of PFOS+PFHxS and/or PFOA
Yellow Shading	Yellow shading indicates sampling location with first time exceedance of NEMP Human Health Screening criteria

5.2.2 Non-PFAS Groundwater Analytical Results

The non-PFAS groundwater analytical results from this sampling event are presented in **Table T2** in **Appendix B**.

5.3 Surface Water Observations and Field Measurements

Table 11 Surface Water Observations and Field Measurements

Compound	Criteria
Fieldwork Dates	The surface water sampling was completed between 4 and 7 May 2021.
Access and Sample Collection	All surface water sampling locations were accessible and able to be sampled.
Contamination Observations	No obvious visible signs of contamination were observed, with the exception of minor foam of unknown origin at SW001 and SW002.

Compound	Criteria
Geochemical Parameters	Surface water geochemical parameters were measured prior to collecting surface water samples. The stabilised readings are presented in **Table T1** in **Appendix B**, and are summarised below: • Dissolved oxygen ranged from 0.65 mg/L (SW016) to 9.23 mg/L (SW037) indicating relatively poorly oxygenated to well oxygenated conditions • Electrical conductivity ranged from 54.6 µS/cm (SW011) to 1789 µS/cm (SW018) indicating fresh to marginal conditions • pH ranged from 5.68 (SW014 and SW015) to 9.02 (SW037) indicating slightly acidic to alkaline conditions • Corrected redox ranged from 178.4 mV (SW037) to 416.7 mV (SW002) indicating reducing conditions.

5.3.1 PFAS Surface Water Analytical Results

The PFAS surface water analytical results from this sampling event are presented in **Table T3** in **Appendix B**. In summary, PFAS compounds were reported at concentrations above the laboratory LOR in 21 of the 22 surface water samples analysed. Concentrations of PFOS+PFHxS and/or PFOA exceeded the adopted human health screening criteria in six of the 22 primary surface water samples analysed.

Deviations from the historical dataset are recorded in **Table 12** below and graphically on **Figure 7** in **Appendix A**.

Table 12 Deviations from Historical Surface Water Dataset

Deviation Type	Monitoring wells/bores	PFOS+PFHxS concentration (µg/L) May 2021	Historical maximum PFOS+PFHxS concentration (µg/L)	PFOA concentration (µg/L) May 2021	Historical maximum PFOA concentration (µg/L)
First time detections of PFOS+PFHxS and/or PFOA in surface water	SW018	0.94	0.08	0.04	<0.01
First time exceedance of the NEMP (HEPA, 2020) recreational use guidelines	SW014	**5.60**	1.37	0.17	0.03
	SW023	**2.47**	0.48	0.08	0.02
Legend					
Bold	Bold text indicates existing detection or exceedance of NEMP Human Health Screening Criteria				
Blue Shading	Blue shading indicates sampling location with first time detection of PFOS+PFHxS and/or PFOA				
Yellow Shading	Yellow shading indicates sampling location with first time exceedance of NEMP Human Health Screening criteria				

5.3.2 Non-PFAS Surface Water Analytical Results

The non-PFAS surface water analytical results from this sampling event are presented in **Table T3** in **Appendix B**.

5.4 Sediment Sample Results

Table 13 Sediment Results and Observations

Compound	Criteria
Fieldwork Dates	The sediment sampling was completed between 4 and 7 May 2021.
Access and Sample Collection	All sediment sample locations were accessible with the exception of SD018 and SD023, which were not accessed due to bank instability issues.
Contamination Observations	No obvious visible signs of contamination were observed.

5.4.1 PFAS Sediment Analytical Results

The PFAS sediment analytical results from this sampling event are presented in **Table T4** in **Appendix B**. In summary, PFAS compounds were detected at concentrations above the laboratory LORs in 17 of the 19 primary sediment samples analysed.

Deviations from the historical dataset are recorded in **Table 14** and graphically on **Figure 8** in **Appendix A**.

Table 14 Deviations from Historical Sediment Dataset

Deviation Type	Sediment Sampling Location	PFOS+PFHxS concentration (µg/L) May 2021	Historical maximum PFOS+PFHxS concentration (µg/L)	PFOA concentration (µg/L) May 2021	Historical maximum PFOA concentration (µg/L)
First time detections of PFOS+PFHxS and/or PFOA in sediment	SD016	0.0086	0.004	0.0005	<0.0002
	SD019	0.0042	0.0032	0.0002	<0.0002
	SD020	0.006	<0.0002	<0.0002	<0.0002
Legend					
Blue Shading	Blue shading indicates sampling location with first time detection of PFOS+PFHxS and/or PFOA				

5.5 Historical Sampling Data

Historical groundwater, surface water and sediment sampling data are presented in **Tables T5**, **T6** and **T7** (respectively) in **Appendix B**.

6.0 Summary and Next Sampling Events

6.1 Summary of Monitoring Event

The biannual monitoring event was completed at the Site, publicly accessible land and private property within the Management Area between 3 and 7 May 2021. The program included:

- Groundwater gauging at 76 of 80 monitoring wells and bores. It is noted that four planned sampling locations could not be gauged
- Groundwater sampling at 76 of 80 monitoring wells and bores. It is noted that four planned sampling locations could not be sampled
- Surface water sampling at all 22 planned locations
- Sediment sampling at 19 of 21 planned locations. It is noted that two planned sediment sampling locations could not be sampled
- Collection of data from four surface water level loggers and seven groundwater level loggers. It is noted that data from one groundwater level logger could not be retrieved
- Collection of data from one barometric logger.

The **Table 15** below summarises the findings of the May 2021 sampling event and the recommended actions.

Table 15 Summary of Sampling Event

Item	Comment	Recommended Actions
Access to sampling locations	The following were accessed and able to be sampled: • 76 out of 80 monitoring wells and bores • 22 out of 22 surface water locations • 19 out of 21 sediment locations Groundwater samples from bores POT001 and POT002 could not be sampled as they had been decommissioned by the property owner. Due to bank instability issues caused by the recent flooding in March 2021, sediment sample locations SD018 and SD023 could not be accessed.	Given that private bores POT001 and POT002 have been decommissioned by the property owner, AECOM recommends their removal from the OMP. In their place, AECOM recommends sampling residential bores MW120 and MW121 during future sampling events. AECOM will attempt to access sediment locations SD018 and SD023 during the next scheduled sampling event.
Monitoring well network condition	Monitoring wells MW006 and MW099 were observed to have sustained damage during the recent flooding in March 2021 and the integrity of the wells appeared to have been comprised with surface water pooling above the open well casing and entering the well. The data logger installed in MW099 in November 2019 was not present within the damaged well at the time this monitoring event was undertaken.	AECOM recommends that MW006 and MW099 should be repaired and redeveloped prior to the next scheduled sampling event. Additionally, AECOM recommends that the missing data logger in MW099 be replaced with a new unit.
Analytical Results	PFAS was detected at concentrations above the laboratory LOR in 64 of the 76 groundwater samples, 21 of 22 surface water samples and 17 of 19 sediment samples analysed.	No actions recommended.

Item	Comment	Recommended Actions
First time exceedance of NEMP drinking water guideline values in groundwater	Concentrations of PFOS+PFHxS exceeded the NEMP drinking water criteria for the first time in monitoring well MW042.	Monitoring well will be sampled again during the November 2021 sampling event.
First time detection of PFOS+PFHxS and/or PFOA in groundwater	PFOS+PFHxS and/or PFOA was detected for the first time in groundwater at monitoring wells MW120 and MW121, noting that this was the first time that these wells have been sampled by AECOM.	Monitoring wells will be sampled again during the November 2021 sampling event.
First time exceedance of NEMP recreational guideline values in surface water	Concentrations of PFOS+PFHxS exceeded the NEMP recreational use criteria for the first time in surface water sampling locations SW014 and SW023.	Locations will be sampled again during the November 2021 sampling event.
First time detection of PFOS+PFHxS and/or PFOA in surface water	PFOA was detected for the first time in surface water at location SW018.	This location will be sampled again during the November 2021 sampling event.
First time detection of PFOS+PFHxS and/or PFOA in sediment	PFOS+PFHxS and/or PFOA was detected for the first time in sediment sample locations SD016, SD019 and SD020.	Locations will be sampled again during the November 2021 sampling event.

6.2 Upcoming Sampling Events

The next biannual sampling event is scheduled for November 2021.

6.3 Upcoming Annual Interpretive Report

The next annual interpretive report is scheduled to be delivered in Q1 2022.

7.0 References

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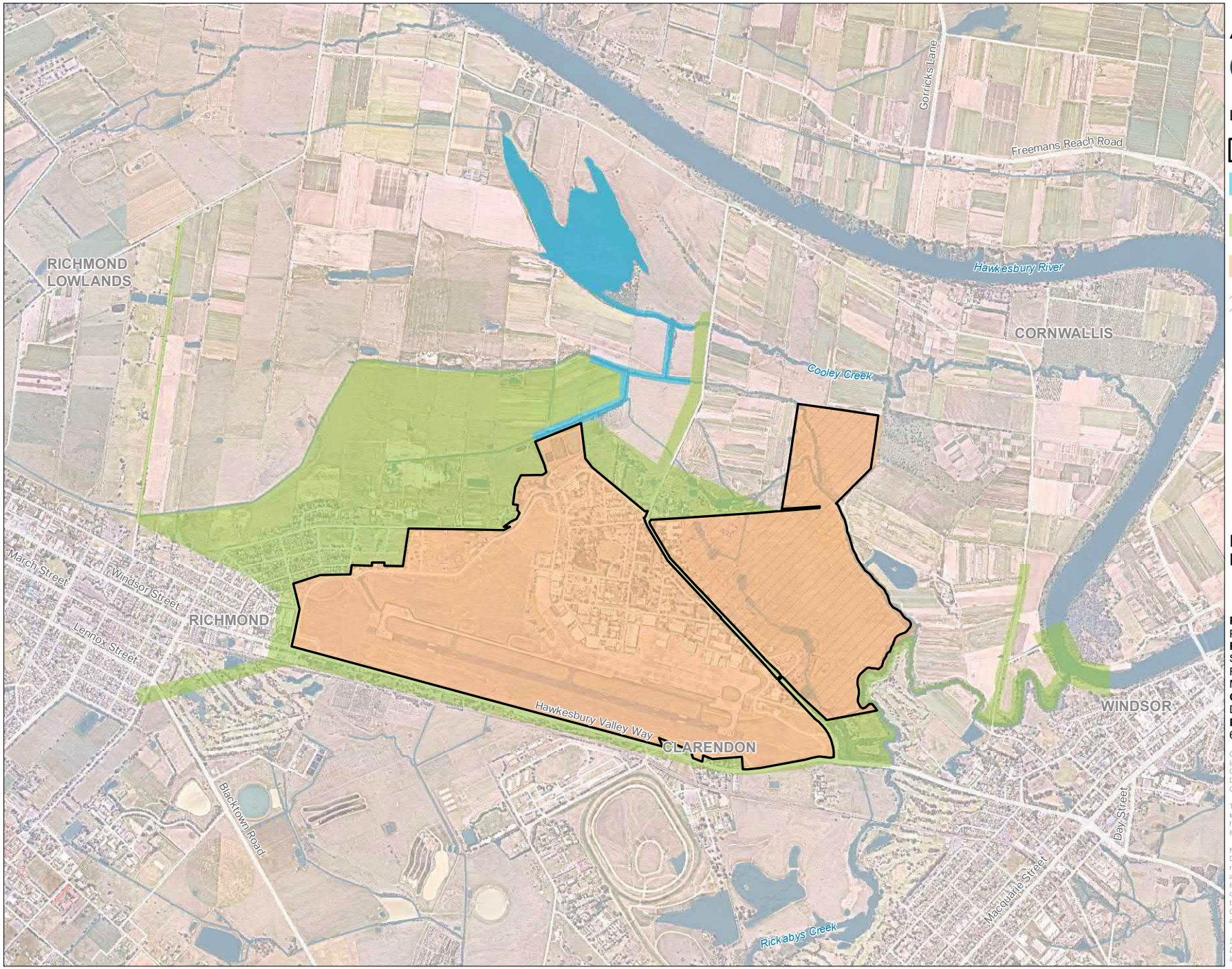
Appendix A

Figures

Appendix A Figures



AECOM

N

0 300 600 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

FIGURE 1:
MANAGEMENT AREAS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
RAAF Base Richmond (0902)
May 2021
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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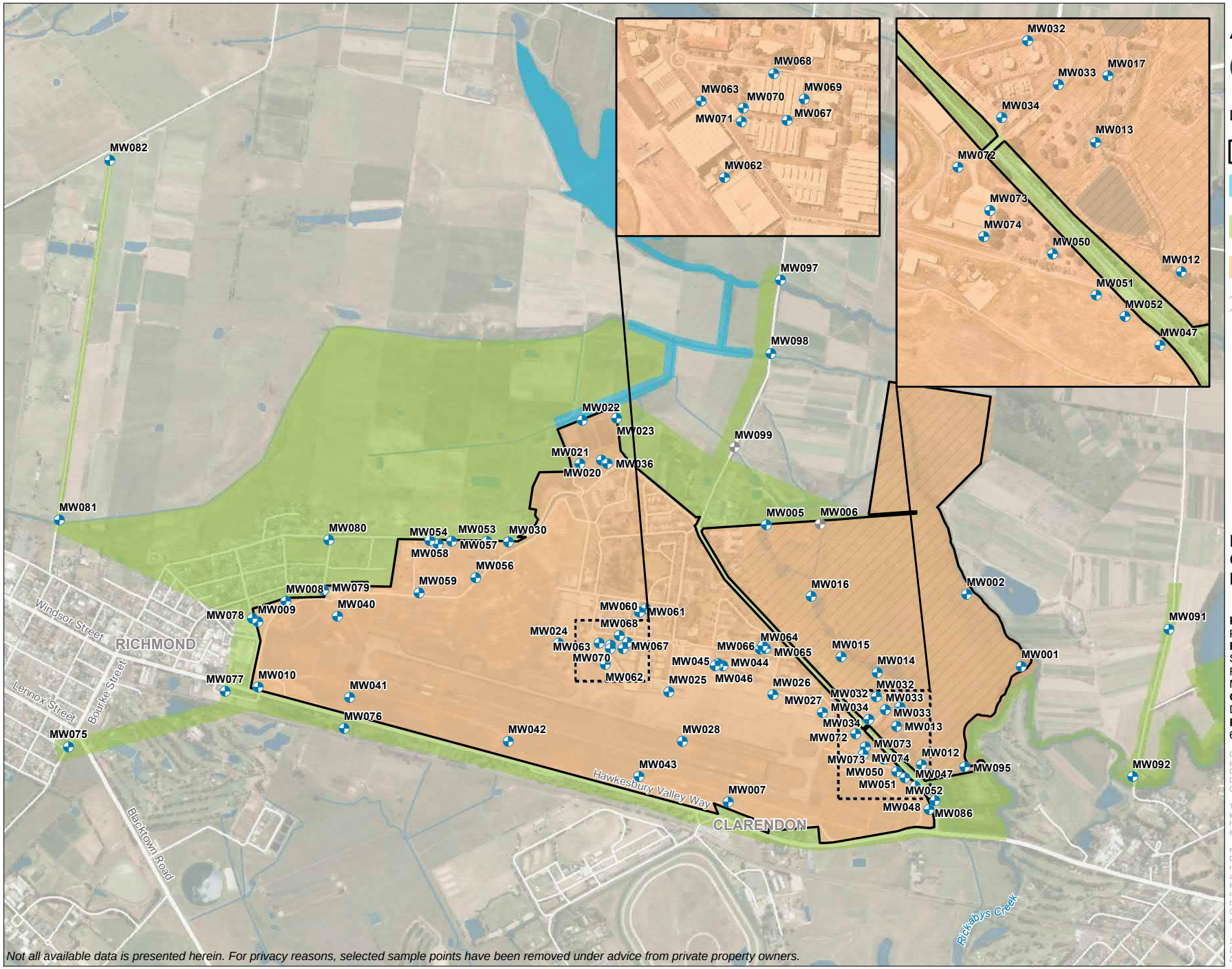

AECOM

N

0 200 400 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Sample Location
- Location not sampled

FIGURE 2: GROUNDWATER SAMPLE LOCATIONS

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PFAS OMP
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May 2021
CLIENT NAME:
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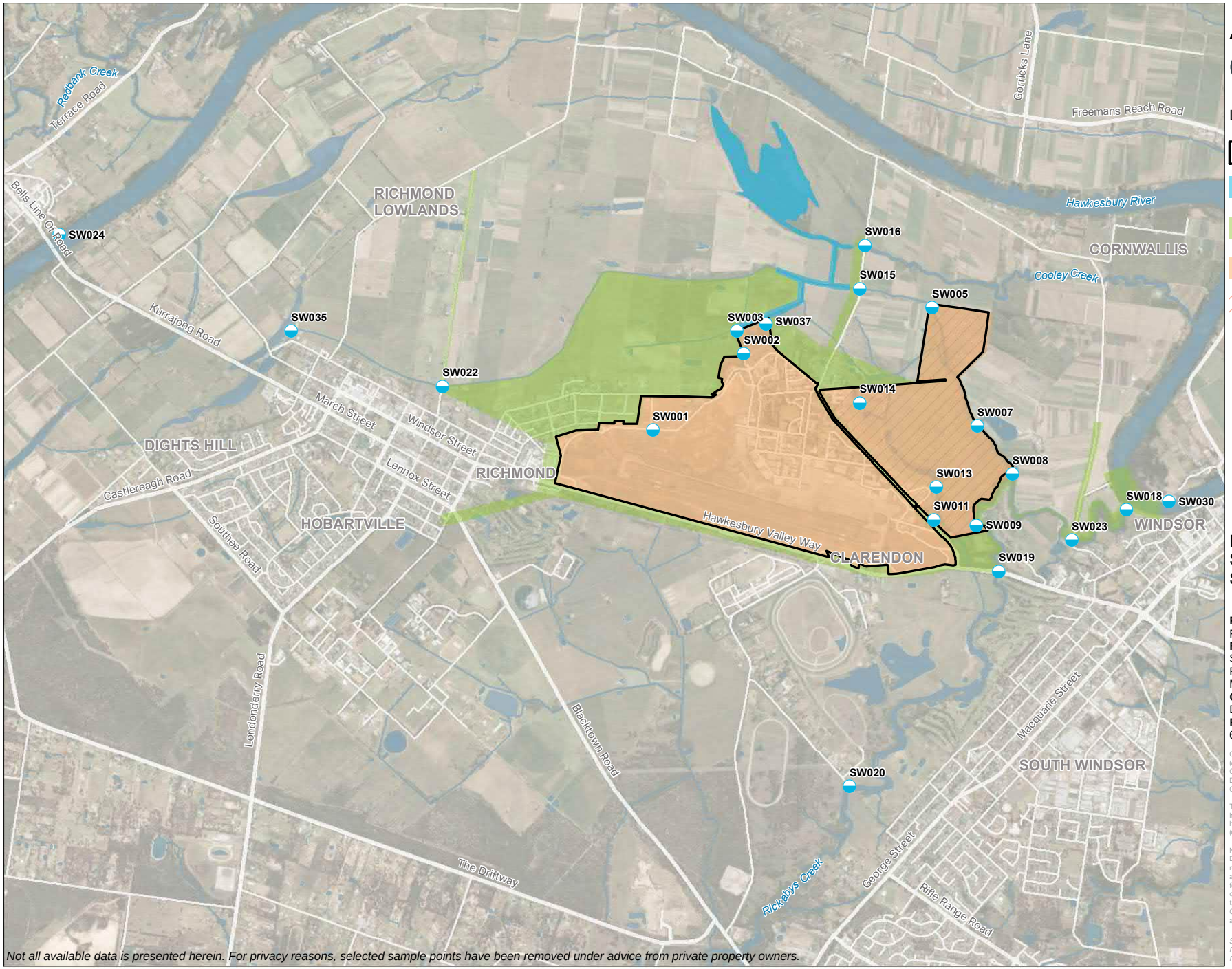

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AECOM

N

0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Surface Water Sample Location

FIGURE 3: SURFACE WATER SAMPLE LOCATIONS

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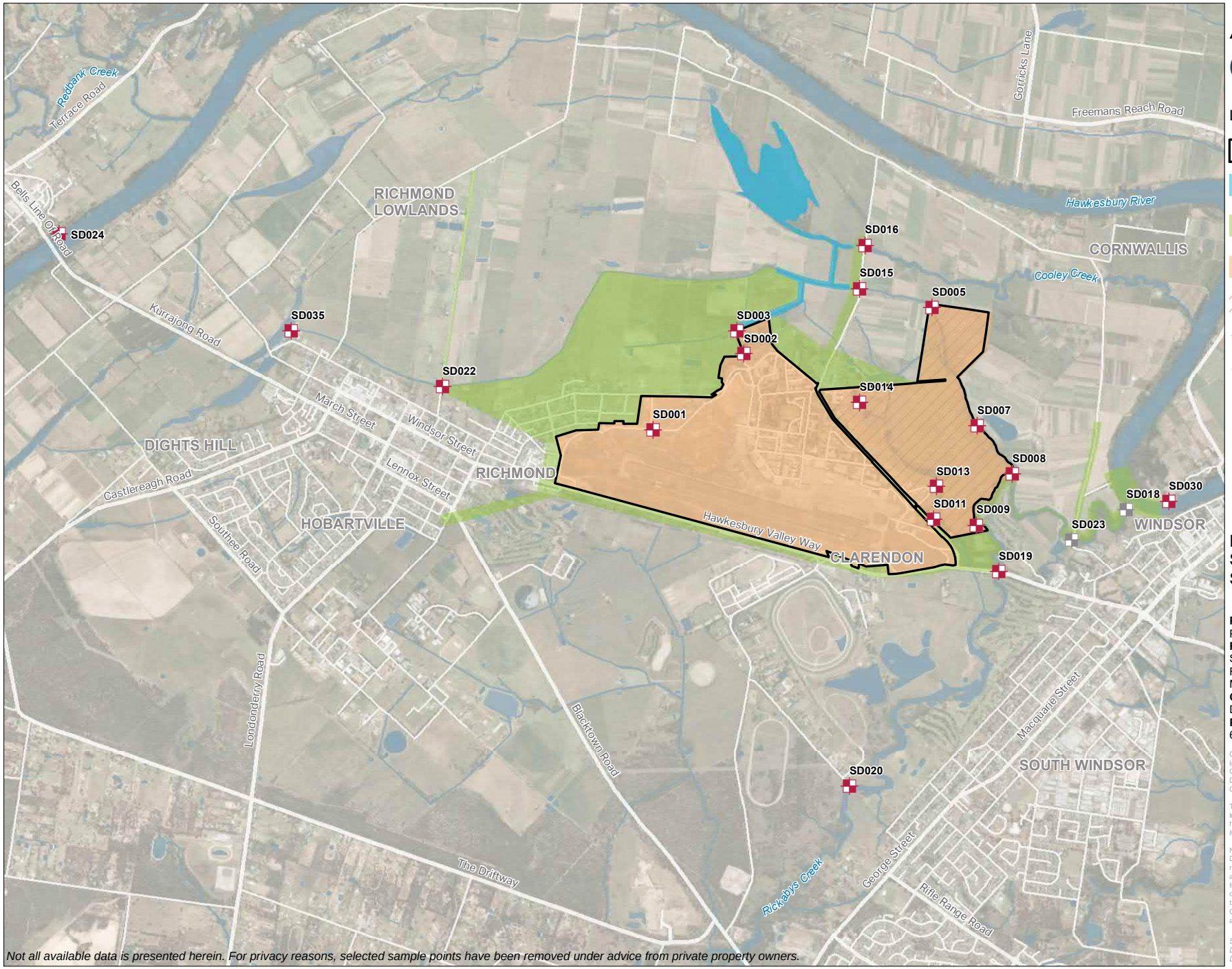

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AECOM

N

0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Sediment Sample Location
- Location not sampled

FIGURE 4: SEDIMENT SAMPLE LOCATIONS

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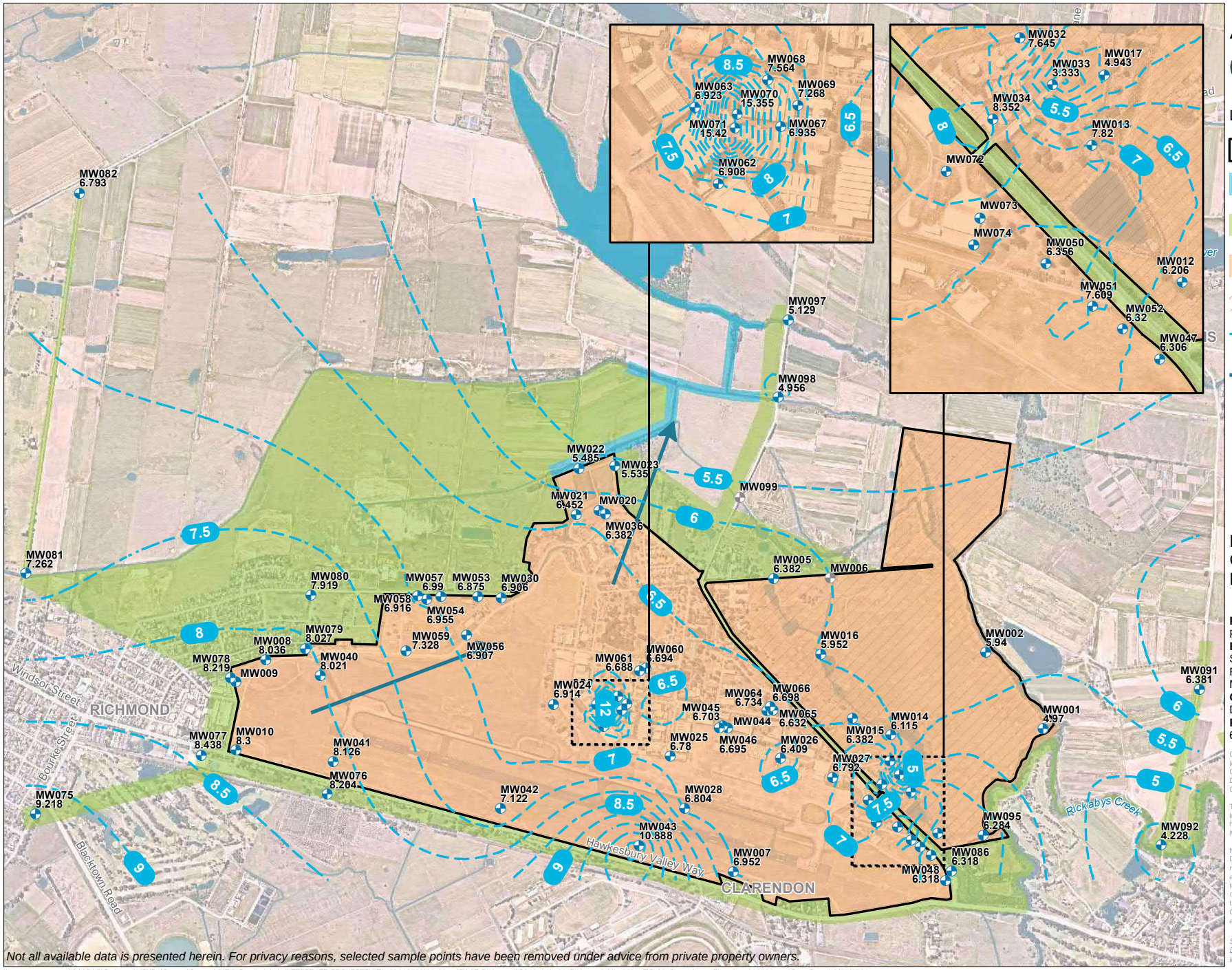

AECOM

N

0 250 500 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Contours (mAHD)
- Inferred Groundwater Flow Direction
- Groundwater Sample Location (mAHD)
- Location not gauged

FIGURE 5: GROUNDWATER ELEVATION PLAN

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May 2021
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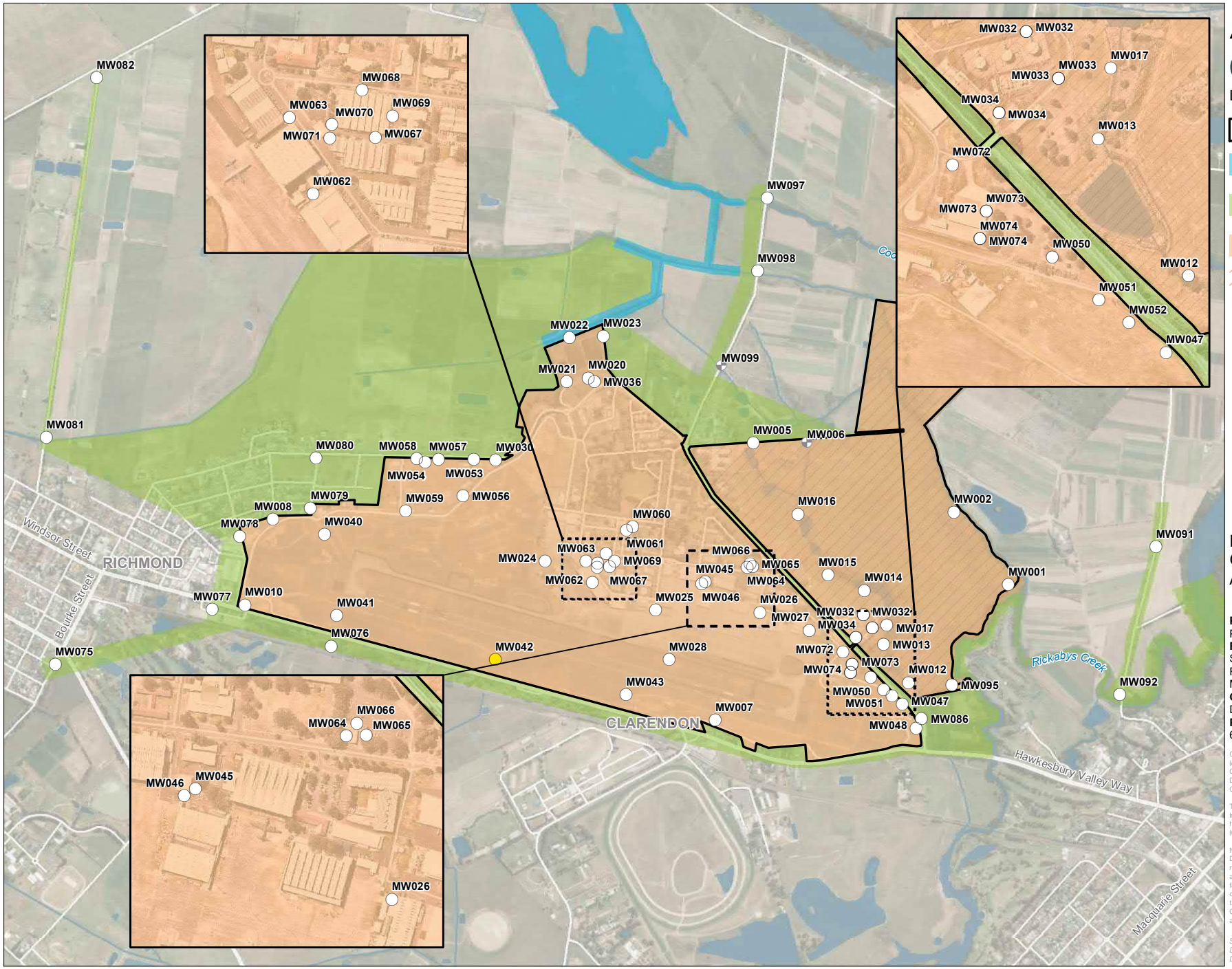

AECOM

N

0 200 400 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- First time exceedance of NEMP (2020) Human health Screening Criteria
- Sampled, no new detection or exceedance
- Location not sampled

FIGURE 6: GROUNDWATER ANALYTICAL RESULTS

PROJECT NAME:
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RAAF Base Richmond (0902)
May 2021
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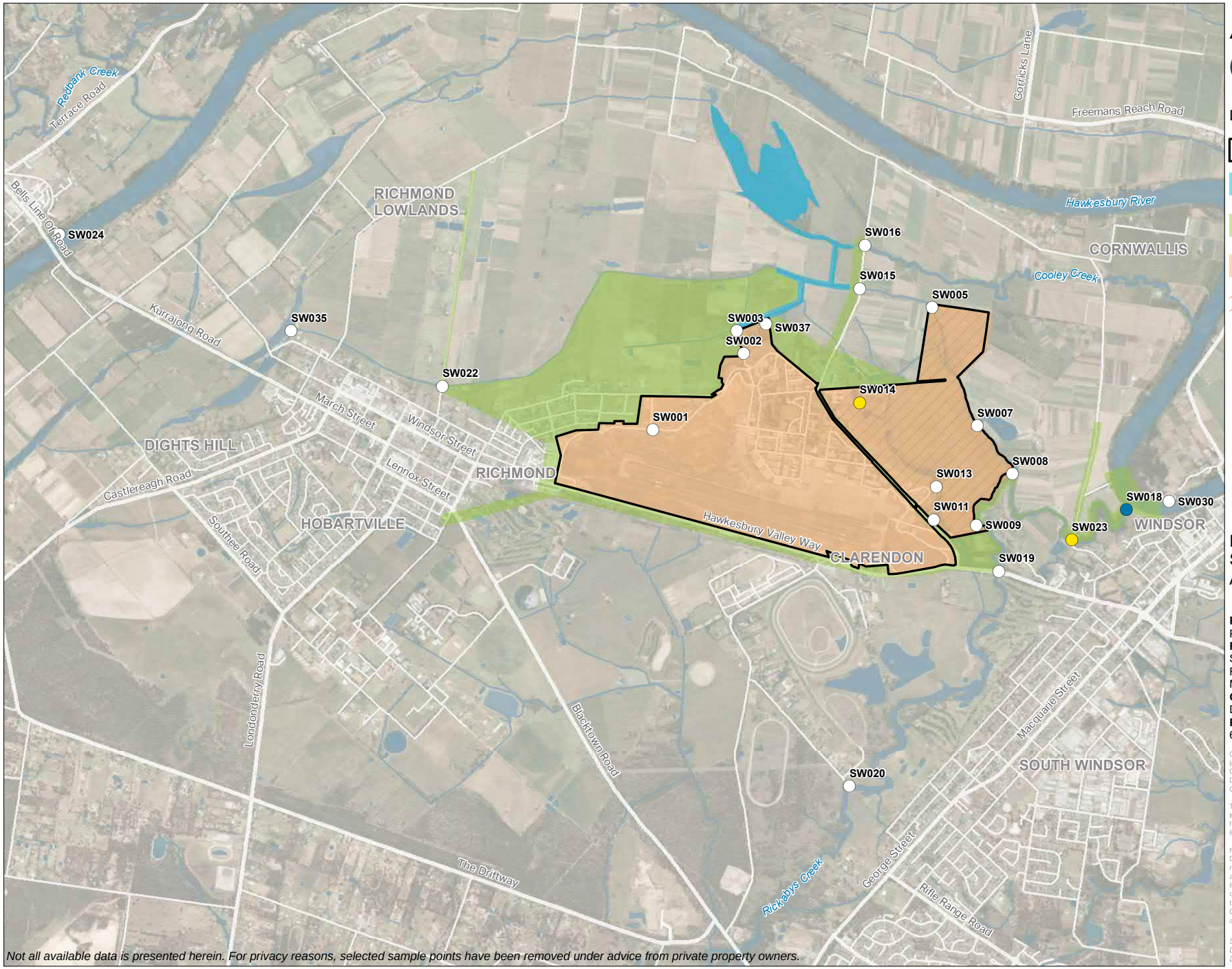

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AECOM

N

0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- First time detection of PFOS+PFHxS and/or PFOA
- First time exceedance of NEMP (2020) Human health Screening Criteria
- Sampled, no new detection or exceedance

FIGURE 7: SURFACE WATER ANALYTICAL RESULTS

PROJECT NAME:
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REPORT NAME:
Sampling Event Factual Report
RAAF Base Richmond (0902)
May 2021
CLIENT NAME:
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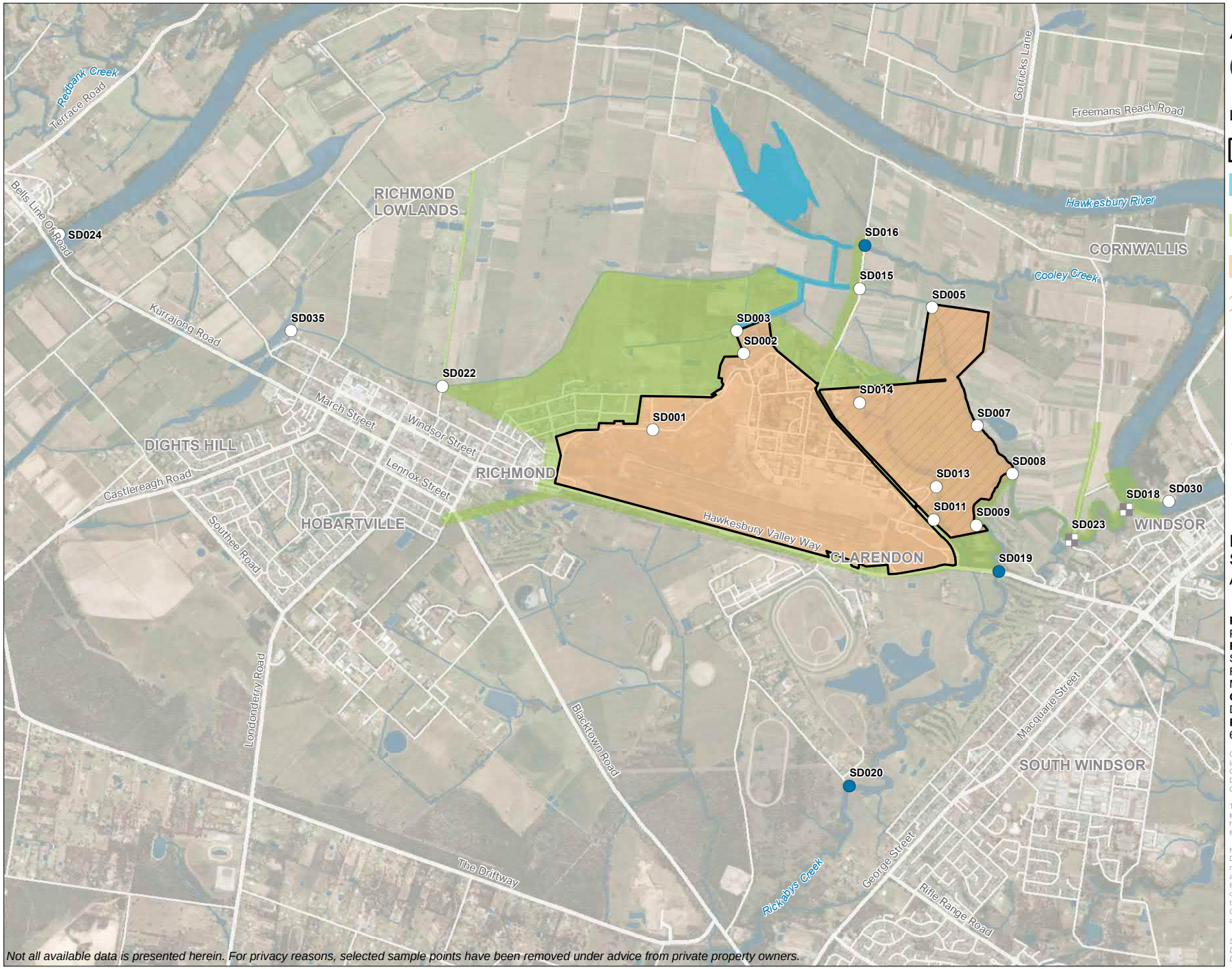

Not all available data is presented herein. For privacy reasons, selected sample points have been removed under advice from private property owners.

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AECOM

N

0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- First time detection of PFOS+PFHxS and/or PFOA
- Sampled, no new detection or exceedance
- Location not sampled

FIGURE 8: SEDIMENT ANALYTICAL RESULTS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
RAAF Base Richmond (0902)
May 2021
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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Appendix B

Tables

Appendix B Tables

Table T1 - Gauging and Geochemical Parameters

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													Field Measurements					
													Redox Er (Field)	Redox Eh (Corrected)	DO (Field)	Temp (Field)	EC (field)	pH (Field)
													mV	mV	mg/L	oC	µS/cm	pH Units
Location	Historical Name	Sampled Date	Easting	Northing	Top of Casing (mAHD)	Water Depth (mbTOC)	Water level (mAHD)	Base of Well (m BTOC)	Top Screen (m BTOC)	Bottom Screen (m BTOC)	Location Type	SampleComments						
MW001	MW01	6/05/2021	296233.04	6279804.88	10.1	5.13	4.97	9.41	5.5	8.5	MW	Brown, medium turbidity, no odour	76.6	282.4	2.69	18.8	569	6.51
MW002	MW02	6/05/2021	295984.34	6280136.03	9.89	3.95	5.94	9.82	5.9	8.9	MW	Brown, low turbidity, no odour	76.9	282.7	4.57	18.4	3604	7.04
MW005	MW05	6/05/2021	295067.61	6280452.91	9.13	2.748	6.382	9.9	-	-	MW	Brown, medium turbidity, no odour	28.2	234	1.64	18	20,873	6.55
MW007	MW07	3/05/2021	294894	6279186.7	16.03	9.078	6.952	11.7	8.8	11.8	MW	Brown, turbid, no odour, sediment in bottom of hydrasleeve	14.1	219.9	2.31	19.1	5499	6.91
MW008	MW08	3/05/2021	292873	6280103.9	20.93	12.894	8.036	16.14	12	15	MW	Brown, turbid, no odour	0.7	206.5	1.69	18.6	3587	6.09
MW009	MW09	3/05/2021	292744.26	6280009.08	20.44	12.244	8.196	13.19	-	-	MW	Brown, turbid, no odour, bailer grab sample taken	30.4	236.2	2.83	19	738	6.51
MW010	MW10	3/05/2021	292745.2	6279711.7	21.06	12.76	8.3	21.83	17.9	20.9	MW	Clear, low to medium turbidity, no odour	64.3	270.1	8.38	19.3	1421	6.16
MW012	MW12	6/05/2021	295777.41	6279355.85	6.64	0.434	6.206	NM	1	4	MW	Brown to grey, high turbidity, no odour, sediment in hydrasleeve	48.2	254	1.44	19.5	1605	6.05
MW013	MW13	6/05/2021	295662.37	6279530.47	7.93	0.11	7.82	6.05	4	7	MW	Brown to yellow, medium turbidity, no odour	34	239.8	1.47	19.1	1253	6.34
MW014	MW14	6/05/2021	295575.28	6279777.44	6.24	0.125	6.115	9.43	5.3	8.3	MW	Grey, low turbidity, no odour	28.7	234.5	9.43	20.1	913	7.04
MW015	MW15	6/05/2021	295409.76	6279849.44	7.02	0.638	6.382	9	5.5	8.5	MW	Grey, low turbidity, no odour	-82.6	123.2	9	19.9	370	8.92
MW016	MW16	6/05/2021	295272.46	6280125.9	7.39	1.438	5.952	5.98	2	5	MW	Clear, low to medium turbidity, no odour, black suspended solids	2.9	208.7	3.9	19.1	2033	7.64
MW017	MW17	6/05/2021	295678.47	6279619.81	6.51	1.567	4.943	4.85	-	-	MW	Yellow, low turbidity, no odour	57.5	263.3	3.25	19.2	3539	7.1
MW020	MW20	5/05/2021	294314	6280748	-	3.323	-	6.525	-	-	MW	Brown, medium turbidity, no odour	114.2	320	1.34	20.4	370.8	5.68
MW021	MW21	5/05/2021	294215.84	6280730.08	7.88	1.428	6.452	4.23	-	-	MW	Light brown, low turbidity, no odour	76.9	282.7	2.22	19.2	657	6.56
MW022	MW22	5/05/2021	294227.04	6280931.01	6.03	0.545	5.485	3.095	-	-	MW	Brown, high turbidity, no odour	-61.2	144.6	1.37	17.2	67.4	6.97
MW023	MW23	5/05/2021	294382.96	6280940.34	6.01	0.475	5.535	4.36	-	-	MW	Light brown, low turbidity, no odour	54.3	260.1	3.14	17.3	969	7.57
MW024	MW24	3/05/2021	294117.34	6279910.89	19.92	13.006	6.914	15.25	12	15	MW	Grey to brown cloudy, low turbidity, no odour	56.2	262	2	20	5052	6.21
MW025	MW25	4/05/2021	294621.57	6279687.69	17.14	10.36	6.78	19.98	16.1	20.1	MW	Clear, no odour, low to medium turbidity	76.4	282.2	2.41	20.6	2204	6.48
MW026	MW26	4/05/2021	295097.99	6279676.01	16.9	10.491	6.409	12.03	9.2	12.2	MW	Brown, medium to high turbidity, no odour	70.2	276	2.62	19.5	899	6.72
MW027	MW27	3/05/2021	295323.49	6279596	16.42	9.628	6.792	13.18	10.2	13.2	MW	Clear, low turbidity, no odour	70.8	276.6	2.49	19.6	1893	6.34
MW028	MW28	3/05/2021	294683.43	6279460.9	16.9	10.096	6.804	11.17	8.2	11.2	MW	Not enough water for field parameters	-	-	-	-	-	-
MW030	MW30	3/05/2021	293890.76	6280372.74	21.27	14.364	6.906	17.43	12.5	17.5	MW	Clear, low turbidity, no odour	-15.1	190.7	2.79	20.2	1492	6.62
MW032	MW32	5/05/2021	295570.79	6279666.9	17.81	11.507	3.333	NM	9.5	12.5	MW	Clear, low turbidity, no odour	69.4	275.2	2.88	20.9	1747	6.98
MW033	MW33	5/05/2021	295611.96	6279607.38	14.84	8.578	8.352	12.62	14	17	MW	Brown, medium turbidity, no odour, hydrasleeve failed, bailer grab sample taken	59.3	265.1	1.94	20.5	1241	7.16
MW034	MW34	5/05/2021	295536.17	6279563.44	16.93	10.165	7.645	16.58	11.85	14.85	MW	Clear, low turbidity, no odour	81.6	287.4	1.36	20.3	1534	6.85
MW036	MW36	7/05/2021	294341.38	6280732.64	19.82	13.438	6.382	21.92	17.8	21.8	MW	Yellow-brown, low turbidity, no odour	70	275.8	4.04	19.1	685	6.88
MW040	MW40	3/05/2021	293108.3	6280034.9	19.52	11.499	8.021	18.08	15	18	MW	Clear, low turbidity, slight hydrogen sulfide odour	-27.4	178.4	1.58	17.4	747	5.99
MW041	MW41	3/05/2021	293163.8	6279663.6	19.73	11.604	8.126	16.6	13.6	16.6	MW	Cloudy, distinct hydrogen sulfide smell	24.5	230.3	1.64	19.8	3369	6.14
MW042	MW42	3/05/2021	293889.1	6279460.6	18.32	11.198	7.122	16.34	13.3	16.3	MW	Clear, low to medium turbidity, no odour	7.1	212.9	1.94	20.1	2444	6.23
MW043	MW43	3/05/2021	294486.5	6279300.8	16.45	5.562	10.888	16.8	14.9	17.9	MW	Clear, low turbidity, hydrogen sulfide odour, sediment in the bottom of hydrasleeve	-92.8	113	4.19	19.5	1756	6.67
MW044	MW44	7/05/2021	294869.1	6279808.69	16.85	10.058	6.792	17.78	-	-	MW	Yellow-brown, low turbidity, no odour	47.4	253.2	1.07	20.1	1486	6.56
MW045	MW45	7/05/2021	294847.41	6279816.81	16.74	10.037	6.703	17.83	14.9	17.9	MW	Yellow-brown, low turbidity, no odour, hydrasleeve did not deploy, bailer grab sample taken	20.2	226	4.77	20.5	1532	6.87
MW046	MW46	4/05/2021	294833.1	6279808.08	16.71	10.015	6.695	17.9	14.9	17.9	MW	Yellow to brown, low turbidity, no odour	67.6	273.4	1.64	19.9	1949	6.32
MW047	MW47	3/05/2021	295748.7	6279257.8	13.78	7.474	6.306	11.43	9	12	MW	Brown, low to medium turbidity, no odour	46.7	252.5	2.38	19.7	5098	6.93
MW048	MW48	3/05/2021	295812.2	6279149.5	17.62	11.302	6.318	14.3	10.3	13.3	MW	Grey to brown, medium turbidity, no odour	13.9	219.7	3.23	19.5	2442	7
MW050	MW50	3/05/2021	295604.23	6279379.99	10.2	3.844	6.356	8.078	-	-	MW	Grey, low turbidity, no odour	7.1	212.9	2.72	18	273.7	7.31
MW051	MW51	3/05/2021	295663.28	6279324.95	10.3	2.691	7.609	5.4	1.5	4.5	MW	Grey, low turbidity, hydrogen sulfide odour, organic suspended solids	-48.7	157.1	2.31	19.6	1387	6.82
MW052	MW52	3/05/2021	295701.56	6279296.13	10.71	4.39	6.32	9.49	6	9	MW	Clear, low turbidity, no odour	38.3	244.1	1.19	20	201.2	7.38
MW053	MW53	3/05/2021	293790.55	6280376.09	20.95	14.075	6.875	16.51	13.5	16.5	MW	Grey, slight hydrogen sulfide odour, low to medium turbidity	-54.9	150.9	2	20.3	2909	6.68
MW054	MW54	4/05/2021	293568.72	6280364.7	24.31	17.355	6.955	19.3	14.9	17.9	MW	Clear, low turbidity, no odour	71.5	277.3	1.99	18.6	2404	6.85
MW056	MW56	7/05/2021	293740.76	6280210.8	19.39	12.483	6.907	15.685	11.5	16.1	MW	Brown, low turbidity, no odour	93.3	299.1	2.05	20.5	3232	6.03
MW057	MW57	4/05/2021	293629.71	6280377.1	22.92	15.93	6.99	21.1	14.2	19.2	MW	Clear, low turbidity, no odour	69.3	275.1	3.92	19.1	1171	6.79
MW058	MW58	4/05/2021	293530.23	6280380.8	22.83	15.914	6.916	20.29	14.7	19.2	MW	Brown, low to medium turbidity, no odour	81.9	287.7	1.59	18.1	3644	6.5
MW059	MW59	7/05/2021	293480.72	6280140.4	20.74	13.412	7.328	NM	14.7	19.2	MW	Clear, low turbidity, no odour	99.8	305.6	1	20.7	5804	6.05
MW060	MW60	4/05/2021	294517.2	6280068.47	17.89	11.196	6.694	NM	12.8	15.8	MW	Clear, low turbidity, no odour	98.2	304	2.16	18.8	2574	6.37
MW061	MW61	4/05/2021	294487.93	6280054.99	18.39	11.702	6.688	13.3	10.5	13.5	MW	Clear, low turbidity, no odour	-10.6	195.2	1.6	19.6	790	6.43
MW062	MW62	4/05/2021	294332.6	6279813.6	18.91	12.002	6.908	13.6	11.5	14.5	MW	Brown to grey, turbid, no odour	57.8	263.6	1.32	19.6	14,742	6.6
MW063	MW63	4/05/2021	294303	6279910.7	19.62	12.697	6.923	15.09	12	14.5	MW	Brown, high turbidity, no odour	92.8	298.6	1.64	20.4	3059	5.86
MW064	MW64	4/05/2021	295039.63	6279884.38	17.86	11.126	6.734	14.6	10.2	14.2	MW	Yellow to brown, low turbidity	19.3	225.1	2.06	19.3	1413	6.5
MW065	MW65	4/05/2021	295065.19	6279885.15	17.95	11.318	6.632	13.12	10	13	MW	Orange, low turbidity, no odour	50.6	256.4	8.43	19.4	1190	6.93
MW066	MW66	4/05/2021	295053.17	6279900.81	18.03	11.332	6.698	NM	11	15	MW	Yellow to brown, low turbidity	50.4	256.2	2.49	19.4	1177	6.74
MW067	MW67	5/05/2021	294412.1	6279885.9	18.6	11.665	6.935	14.67	11.7	14.7	MW	Clear, low turbidity, no odour	107.4	313.2	1.57	20.2	6593	6.52
MW068	MW68	4/05/2021	294395.3	6279946.1	19.05	11.486	7.564	15.1	11.9	14.9	MW	Clear, no odour, low to medium turbidity	55.2	261	2.77	19.7	1472	6.37
MW069	MW69	5/05/2021	294434.2	6279913.3	19.03	11.762	7.268	NM	13	16	MW	Clear, low turbidity, no odour	38.1	243.9	1.32	20.4	543.3	6.67
MW070	MW70	4/05/2021	294356.89	6279902.05	19.4	4.045	15.355	5.3	2.3	5.3	MW	Brown, high turbidity, no odour	60	265.8	4.2	20.6	195.6	6.45
MW071	MW71	4/05/2021	294354.36	6279884.54	19.15	3.73	15.42	5.09	2	5	MW	Brown, high turbidity, no odour	79.9	285.7	5.71	21	126.9	6.3
MW072	MW72	5/05/2021	295477	6279497	-	8.385	-	13.16	-	-	MW	Clear, low turbidity, no odour	53.8	259.6	2.43	19.3	168	5.95
MW073	MW73	5/05/2021	295520	6279438	-	8.98	-	12.93	10	13	MW	Clear, low turbidity, no odour	-49.4	156.4	1.13	19.5	1450	6.63
MW074	MW74	5/05/2021	295512	6279403	-	5.586	-	11.7	10	14	MW	Brown, medium turbidity, no odour, hydrasleeve failed, bailer grab sample taken	70.2	276	2.32	19.4	749	6.42
MW075	MW75	4/05/2021	291878.552	6279437.869	18.097	8.879	9.218	14.345	12	15	MW	Brown, high turbidity, no odour	84.1	289.9	1.87	18.5	542.3	5.99
MW076	MW76	3/05/2021	293138.218	6279522.997	19.54	11.336	8.204	17.88	15	18	MW	Clear, low turbidity, no odour, sediment in hydrasleeve	22.7	228.5	3.4	19.9	399.5	6.29
MW077	MW77	3/05/2021	292595.262	6279690.929	19.942	11.504	8.438	21.92	19.5	22	MW	Clear, low turbidity, no odour	39.1	244.9	1.84	20.5	861	6.05
MW078	MW78	3/05/2021	292720.357	6280025.382	19.807	11.588	8.219	17.46	15	18	MW	Clear, low to medium turbidity, no odour	-18.3	187.5	2.08	21.6	1617	6.47
MW079	MW79	3/05/2021	293044.509	6280152.832	20.453	12.426	8.027	17.86	15	18	MW	Clear, low to medium turbidity, no odour, sediment in hydrasleeve	-29.3	176.5	1.86	20.8	1907	6.34
MW080	MW80	3/05/2021	293069.219	6280381.896	22.791	14.872	7.919	30.8	21	24	MW	Grey, low turbidity, hydrogen sulfide odour, black suspended solids	81.7	287.5	2.14	21.2	1832	6.2
MW081	MW81	5/05/2021	291836.876	6280475.99	7.376	1.988	5.388	5.51	2.6	5.6	MW	Light brown, low turbidity, no odour	92.4	298.2	7.86	18.9	*	7.13
MW082	MW82	4/05/2021	292067.336	6282119.951	8.781	1.988	6.793	5.86	3	6	MW	Brown, turbid, no odour	95	300.8	1.72	19.4	1480	6.53
MW086	MW86	3/05/2021	295837.01	6279191.36	10.387	4.069	6.318	6.56	3.6	6.6	MW	Clear, low turbidity, no odour	60.3	266.1	2.91	22.1	6121	7.1
MW091	MW91	3/05/2021	296907.799	6279975.912	8.345	1.964	6.381	6.48	3.5	6.5	MW	Clear, low turbidity, no odour	21.6	227.4	3.6	22	418.9	6.69
MW092	MW92	6/05/2021	296742.333	6279302.07	8.995	4.767	4.228	21.6	19	22	MW	Grey, low to medium turbidity, no odour	-1	204.8	0.79	19.9	1998	5.97
MW095	MW95	6/05/2021	295974.97	6279345.094	7.519	1.235	6.284	8.83	5.5	8.5	MW	Brown, medium turbidity, no odour	99.2	305	2.13	19.6	5064	6.86
MW097	MW97	5/05/2021	295131.85	6281570.713	6.465	1.336	5.129	7.24	4.3	7.3	MW	Brown, medium to high turbidity, no odour	104.3	310.1	2.13	18.4	759	6.39
MW098	MW98	5/05/2021	295088.435	6281236.789	5.511	0.555	4.956	8.595	5.8	8.8	MW	Light brown, medium turbidity, no odour	36.4	242.2	2.03	18.9	3175	6.48
MW120	-	4/05/2021	293433	6281346	-	1.365	-	16.81			MW	Turbid, black suspended solids, bailer grab sample	57.3	263.1	2.2	16.9	1098	8.45
MW121	-	4/05/2021	293382	6281862	-	1.695	-	17.31			MW	Dark grey to brown, medium turbidity, no odour, bailer grab sample	29.5	235.3	1.94	18.1	509.4	7.77

Table T1 - Gauging and Geochemical Parameters

AECOM

Location	Historical Name	Sampled Date	Easting	Northing	Top of Casing (mAHD)	Water Depth (mbTOC)	Water level (mAHD)	Base of Well (m BTOC)	Top Screen (m BTOC)	Bottom Screen (m BTOC)	Location Type	SampleComments	Redox Er (Field) mV	Redox Eh (Corrected) mV	DO (Field) mg/L	Temp (Field) oC	EC (field) µS/cm	pH (Field) pH Units
SW001	SW001	7/05/2021	293475.328	6280121.404	-	-	-	-	-	-	SW	Brown, low turbidity, no odour, foam of unknown origin observed	29.5	235.3	2.3	19.9	181.2	6.48
SW002	SW002	5/05/2021	294183.905	6280713.965	-	-	-	-	-	-	SW	Yellow to green, low turbidity, no odour, foam of unknown origin observed	210.9	416.7	3.89	17.6	148.8	5.75
SW003	SW003	5/05/2021	294128.979	6280891.748	-	-	-	-	-	-	SW	Brown, high turbidity, no odour, suspended organic solids	153.8	359.6	2.32	16	165.4	6.01
SW005	SW005	6/05/2021	295651.105	6281077.754	-	-	-	-	-	-	SW	Brown, medium turbidity, no odour, flow observed	73.3	279.1	2.55	15.3	1332	7.1
SW007	SW007	6/05/2021	296003.964	6280152.958	-	-	-	-	-	-	SW	Brown, low turbidity, no odour	62.8	268.6	5.75	17	1355	7.11
SW008	SW008	6/05/2021	296277.208	6279780.573	-	-	-	-	-	-	SW	Brown, medium turbidity, no odour	3.7	209.5	1.23	17.7	1344	6.35
SW009	SW009	6/05/2021	295995.241	6279380.005	-	-	-	-	-	-	SW	Brown to yellow, medium turbidity, no odour	42.5	248.3	7.45	17.7	115.6	6.58
SW011	SW011	7/05/2021	295662.948	6279423.215	-	-	-	-	-	-	SW	Yellow-brown, low turbidity, no odour	59.9	265.7	6.89	18.3	54.6	7.38
SW013	SW013	6/05/2021	295683.354	6279679.01	-	-	-	-	-	-	SW	Brown to yellow, medium turbidity, no odour	31.9	237.7	4.53	18	417.6	7.13
SW014	SW014	6/05/2021	295087.696	6280334.806	-	-	-	-	-	-	SW	Brown, low to medium turbidity, no odour, flow observed	114.2	320	1.34	20.4	370.8	5.68
SW015	SW015	5/05/2021	295086.581	6281223.141	-	-	-	-	-	-	SW	Light brown, medium turbidity, no odour, flow observed	114.2	320	1.34	20.4	370.8	5.68
SW016	SW016	5/05/2021	295128.735	6281560.077	-	-	-	-	-	-	SW	Light brown, medium turbidity, no odour, flow observed	79.3	285.1	0.65	15.8	608	7.14
SW018	SW018	6/05/2021	297165.365	6279500.683	-	-	-	-	-	-	SW	Yellow, low turbidity, no odour	60.2	266	4.52	18.6	1789	6.45
SW019	SW019	7/05/2021	296171.632	6279019.519	-	-	-	-	-	-	SW	Yellow, low turbidity, no odour	78.7	284.5	6.24	18.9	1281	7.03
SW020	SW020	7/05/2021	295008.232	6277347.646	-	-	-	-	-	-	SW	Yellow-brown, medium turbidity, no odour	61.5	267.3	5.84	18.6	729	7.09
SW022	SW022	5/05/2021	291835.389	6280460.686	-	-	-	-	-	-	SW	Light yellow, organic matter, flow observed	73.1	278.9	6.61	18.4	140.2	7.08
SW023	SW023	6/05/2021	296740.19	6279262.279	-	-	-	-	-	-	SW	Yellow to green, low turbidity, no odour	50.9	256.7	4.68	18.8	1457	6.76
SW024	SW024	5/05/2021	288848.618	6281647.377	-	-	-	-	-	-	SW	Light brown, no odour, flow observed	68.5	274.3	7.31	17.6	248.2	6.53
SW030	SW030	7/05/2021	297497.294	6279565.379	-	-	-	-	-	-	SW	Yellow, low turbidity, no odour	57.5	263.3	8.64	18.6	391.9	7.22
SW032	SW032	4/05/2021	294144.297	6282040.897	-	-	-	-	-	-	SW	Yellow, low turbidity, flow observed	77.7	283.5	6.73	17.7	949	7.47
SW035	SW035	6/05/2021	290655.83	6280895.65	-	-	-	-	-	-	SW	Brown, low to medium turbidity, no odour, no flow observed	38.5	244.3	7.54	18.2	167.1	7.21
SW037	SW037	5/05/2021	294355.93	6280946.49	-	-	-	-	-	-	SW	Green, turbid, no odour, algae present	-27.4	178.4	9.23	16.4	204.6	9.02

Notes

mBTOC	Meters below top of casing
mAHD	Meters Australian height Datum
mV	milliVolts
mg/L	milligrams per Litre
oC	degrees Celsius
µS/cm	micro Siemens per centremetre
Corrected field Redox measurement (Eh [mV]) = Er [mV] + 205.8	
NM	Not Measured
MW	Monitoring Well
SW	Surface Water
*	Not measured due to field equipment failure

Table T2: Groundwater Analytical Results

AECOM

								PFAS Full Suite																								Inorganics							Metals			
								Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFAS (WA DER List)	Perfluorononane sulfonate (PFNS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOS)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctadecanoic Acid (PFODA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropatimitic acid (PFHxDA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS	Nitrite + Nitrate as N	Ammonia as N	Kjeldahl Nitrogen Total	Nitrate (as N)	Nitrite (as N)	Filtered Total Phosphorus as P	Nitrogen (Total)	Aluminium	Bromine	Iron	Manganese
								µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	µg/L	mg/L	mg/L
LOR								0.01	0.01	0.01	0.02	0.01	0.00001	0.05	0.05	0.05	0.05	0.05	0.02	0.05	0.05	0.02	0.05	0.02	0.1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.01	0.01	10	0.1	0.01	0.01	0.01	100	0.01	100	0.05	0.001
PFAS NEMP 2020 Drinking Water								**0.07**		**0.56**																																							
PFAS NEMP 2020 Freshwater 99%									*0.00023*	*19*																																							
Location	**Historical Name**	**Field ID**	**Sampled Date**	**Sample Type**	**Lab Report**																																											
MW001	MW01	0902_MW001_210506	6/05/2021	Normal	ES2117089	**0.12**	*<0.01*	<0.01	0.12	0.16	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	0.03	<0.02	<0.05	<0.02	<0.02	0.19	0.1	<10	0.2	0.1	<0.01	0.05	300	<0.01	1000	0.07	0.104
MW002	MW02	0902_MW002_210506	6/05/2021	Normal	ES2117089	<0.01	*<0.01*	<0.01	<0.02	<0.01	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	-	-	-	-	-	-	-	-	-	-	-
MW005	MW05	0902_MW005_210506	6/05/2021	Normal	ES2117098	**0.14**	*0.04*	<0.01	0.1	0.14	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.14	0.16	<10	0.2	0.16	<0.01	0.13	400	<0.01	9000	0.46	0.526
MW007	MW07	0902_MW007_210503	3/05/2021	Normal	ES2116725	**0.09**	*<0.01*	<0.01	0.09	0.09	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.09	-	-	-	-	-	-	-	-	-	-	-
MW007	MW07	0902_QC100_210503	3/05/2021	Field_D	ES2116725	**0.1**	*<0.01*	<0.01	0.1	0.12	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.12	-	-	-	-	-	-	-	-	-	-	-
MW008	MW08	0902_MW008_210503	3/05/2021	Normal	ES2116725	**0.33**	*0.02*	<0.01	0.31	0.68	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	<0.1	<0.02	<0.02	<0.02	<0.02	0.16	<0.02	-	<0.02	-	0.13	0.03	<0.05	<0.02	<0.02	0.81	-	-	-	-	-	-	-	-	-	-	-	-	-
MW009	MW09	0902_MW009_210503	3/05/2021	Normal	ES2116725	**0.18**	*0.15*	<0.01	0.03	0.18	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.18	1.25	-	1.5	-	-	1	2800	0.14	400	0.25	0.24
MW010	MW10	0902_MW010_210503	3/05/2021	Normal	ES2116725	**8.14**	*4.67*	0.19	3.47	10.6	-	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.54	0.1	<0.02	<0.02	<0.02	0.12	0.11	1.19	<0.02	<0.02	-	<0.02	-	0.54	0.22	<0.05	<0.02	<0.02	11.2	-	-	-	-	-	-	-	-	-	-	-
MW012	MW12	0902_MW012_210506	6/05/2021	Normal	ES2117098	**11.4**	*1.47*	0.34	9.97	15.9	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.43	<0.1	<0.02	<0.02	<0.02	0.21	0.27	1.97	<0.02	<0.02	-	1.63	0.41	<0.05	<0.02	<0.02	17.7	-	-	-	-	-	-	-	-	-	-	-	-	-
MW012	MW12	0902_QC103_210506	6/05/2021	Field_D	ES2117098	**10.5**	*1.63*	0.31	8.9	15	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.54	0.3	<0.02	<0.02	<0.02	0.22	0.29	1.65	<0.02	<0.02	-	1.72	0.38	<0.05	<0.02	<0.02	16.9	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013	MW13	0902_MW013_210506	6/05/2021	Normal	ES2117098	**5.75**	*0.11*	0.03	5.64	6.63	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.55	<0.1	<0.02	<0.02	<0.02	0.05	0.02	0.23	<0.02	<0.02	-	0.65	0.05	<0.05	<0.02	<0.02	7.33	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013	MW13	0902_QC203_210506	6/05/2021	Interlab_D	RN1314562	**4.83**	*0.13*	0.015	4.7	-	<0.00001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	0.52	0.12	<0.01	<0.01	<0.01	0.02	0.014	0.13	<0.01	<0.05	<0.01	<0.02	0.53	0.037	<0.02	<0.02	<0.01	5.696	-	-	-	-	-	-	-	-	-	-	-	-	-
MW014	MW14	0902_MW014_210506	6/05/2021	Normal	ES2117098	**1.45**	*0.07*	<0.01	1.38	2.15	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.34	<0.1	<0.02	<0.02	<0.02	0.02	0.02	0.29	<0.02	-	<0.02	-	0.32	0.05	<0.05	<0.02	<0.02	2.49	-	-	-	-	-	-	-	-	-	-	-	-	-
MW015	MW15	0902_MW015_210506	6/05/2021	Normal	ES2117098	**2.19**	*0.86*	0.06	1.33	2.66	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15	<0.1	<0.02	<0.02	<0.02	0.03	0.03	0.2	<0.02	-	<0.02	-	0.17	0.03	<0.05	<0.02	<0.02	2.89	-	-	-	-	-	-	-	-	-	-	-	-	-
MW016	MW16	0902_MW016_210506	6/05/2021	Normal	ES2117098	<0.01	*<0.01*	<0.01	<0.02	<0.01	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	-	-	-	-	-	-	-	-	-	-	-
MW017	MW17	0902_MW017_210506	6/05/2021	Normal	ES2117098	**8.91**	*1.9*	0.08	7.01	9.71	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.41	<0.1	<0.02	<0.02	<0.02	0.15	0.03	0.23	<0.02	<0.02	-	0.59	0.05	<0.05	<0.02	<0.02	10.4	-	-	-	-	-	-	-	-	-	-	-	-	-
MW020	MW20	0902_MW020_210505	5/05/2021	Normal	ES2117098	**7.72**	*0.42*	0.17	7.3	9.38	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.38	<0.1	<0.02	<0.02	<0.02	0.14	0.08	0.86	<0.02	-	<0.02	-	0.62	0.17	<0.05	<0.02	<0.02	10.1	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021	MW21	0902_MW021_210505	5/05/2021	Normal	ES2116725	**5.51**	*3.08*	0.31	2.43	6.73	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.2	0.1	<0.02	<0.02	<0.02	0.11	0.09	0.37	0.05	-	<0.02	-	0.13	0.15	<0.05	<0.02	<0.02	7.02	-	-	-	-	-	-	-	-	-	-	-	-	-
MW022	MW22	0902_MW022_210505	5/05/2021	Normal	ES2116725	**17**	*8.91*	**0.69**	8.06	22	-	<0.05	<0.05	0.14	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.88	0.4	<0.02	0.04	<0.02	0.47	0.38	1.87	0.14	-	<0.02	-	0.9	0.68	<0.05	<0.02	<0.02	23.6	0.03	2480	3.1	0.03	<0.01	1.07	3100	<0.01	1300	7.02	0.866
MW023	MW23	0902_MW023_210505	5/05/2021	Normal	ES2116725	**0.27**	*0.18*	<0.01	0.09	0.29	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.29	-	-	-	-	-	-	-	-	-	-	-
MW024	MW24	0902_MW024_210503	3/05/2021	Normal	ES2116725	**0.34**	*0.07*	<0.01	0.27	0.6	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.09	<0.02	-	<0.02	-	0.1	0.02	<0.05	<0.02	<0.02	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-
MW025	MW25	0902_MW025_210504	4/05/2021	Normal	ES2116725	0.03	*<0.01*	<0.01	0.03	0.03	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.03	-	-	-	-	-	-	-	-	-	-	-
MW026	MW26	0902_MW026_210504	4/05/2021	Normal	ES2116725	**3.64**	*0.48*	0.15	3.16	4.84	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42	<0.1	<0.02	<0.02	<0.02	0.14	0.08	0.46	<0.02	-	<0.02	-	0.4	0.09	<0.05	<0.02	<0.02	5.38	-	-	-	-	-	-	-	-	-	-	-	-	-
MW027	MW27	0902_MW027_210503	3/05/2021	Normal	ES2116725	**1.29**	*0.31*	0.03	0.98	1.66	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19	<0.1	<0.02	<0.02	<0.02	0.03	<0.02	0.12	<0.02	-	<0.02	-	0.18	0.03	<0.05	<0.02	<0.02	1.87	-	-	-	-	-	-	-	-	-	-	-	-	-
MW028	MW28	0902_MW028_210503	3/05/2021	Normal	ES2116725	**12.1**	*0.04*	0.16	12.1	25	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.79	0.7	<0.02	<0.02	<0.02	<0.02	0.86	6.08	<0.02	-	<0.02	-	4.2	1.31	<0.05	<0.02	<0.02	29.2	-	-	-	-	-	-	-	-	-	-	-	-	-
MW030	MW30	0902_MW030_210503	3/05/2021	Normal	ES2116725	**2.91**	*1.07*	0.11	1.84	3.72	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28	<0.1	<0.02	<0.02	<0.02	0.07	0.06	0.3	<0.02	-	<0.02	-	0.27	0.06	<0.05	<0.02	<0.02	4.06	-	-	-	-	-	-	-	-	-	-	-	-	-
MW034	MW34	0902_MW034_210505	5/05/2021	Normal	ES2117098	**5.69**	*0.34*	0.2	5.35	8.65	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.1	<0.1	<0.02	<0.02	<0.02	0.18	0.17	1.26	<0.02	-	<0.02	-	1.05	0.23	<0.05	<0.02	<0.02	9.88	-	-	-	-	-	-	-	-	-	-	-	-	-
MW032	MW32	0902_MW032_210505	5/05/2021	Normal	ES2117098	**17.3**	*3.12*	0.36	14.2	24.6	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.05	1.1	<0.02	<0.02	<0.02	0.57	0.27	2.91	<0.02	-	<0.02	-	2.66	0.54	<0.05	<0.02	<0.02	27.8	-	-	-	-	-	-	-	-	-	-	-	-	-
MW033	MW33	0902_MW033_210505	5/05/2021	Normal	ES2117098	**1.03**	*0.08*	0.02	0.95	1.36	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	<0.1	<0.02	<0.02	<0.02	0.02	0.02	0.14	<0.02	-	<0.02	-	0.09	0.06	<0.05	<0.02	<0.02	1.45	-	-	-	-	-	-	-	-	-	-	-	-	-
MW036	MW36	0902_MW036_210507	7/05/2021	Normal	ES2117172	**0.86**	*0.06*	0.01	0.8	1.25	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.2	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.14	<0.02	-	<0.02	-	0.18	0.04	<0.05	<0.02	<0.02	1.43	-	-	-	-	-	-	-	-	-	-	-	-	-
MW041	MW41	0902_MW041_210503	3/05/2021	Normal	ES2116725	**0.15**	*0.04*	<0.01	0.11	0.15	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.15	-	-	-	-	-	-	-	-	-	-	-
MW042	MW42	0902_MW042_210503	3/05/2021	Normal	ES2116725	**0.19**	*0.16*	<0.02	0.03	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.19	-	-	-	-	-	-	-	-	-	-	-
MW043	MW43	0902_MW043_210503	3/05/2021	Normal	ES2116725	0.06	*0.06*	<0.01	<0.02	0.06	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.06	-	-	-	-	-	-	-	-	-	-	-
MW044	MW44	0902_MW044_210507	7/05/2021	Normal	ES2117172	0.06	*0.02*	<0.01	0.04	0.06	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.06	-	-	-	-	-	-	-	-	-	-	-
MW044	MW44	0902_MW044_210504	4/05/2021	Interlab_D	RN1314562	**0.076**	*0.038*	<0.01	0.038	-	<0.00001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	0.086	-	-	-	-	-	-	-	-	-	-	-	-	-
MW045	MW45	0902_MW045_210507	7/05/2021	Normal	ES2117172	**0.19**	*0.12*	<0.01	0.07	0.19	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.19	-	-	-	-	-	-	-	-	-	-	-
MW046	MW46	0902_MW046_210504	4/05/2021	Normal	ES2116725	0.04	*<0.01*	<0.01	0.04	0.04	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.04	-	-	-	-	-	-	-	-	-	-	-
MW047	MW47	0902_MW047_210503	3/05/2021	Normal	ES2116725	**11.7**	*3.08*	0.37	8.66	15.9	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.55	0.2	<0.02	<0.02	<0.02	0.32	0.24	1.44	<0.02	-	<0.02	-	1.75	0.34	<0.05	<0.02	<0.02	18	-	-	-	-	-	-	-	-	-	-	-	-	-
MW048	MW48	0902_MW048_210503	3/05/2021	Normal	ES2116725	**0.12**	*<0.01*	<0.01	0.12	0.24	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	<0.02	-	<0.02	-	0.05	<0.02	<0.05	<0.02	<0.02	0.29	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	MW50	0902_MW050_210503	3/05/2021	Normal	ES2116725	**12.8**	*9.9*	0.35	2.95	15.5	-	<0.05	<0.05	0.15	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.5	0.2	<0.02	<0.02	<0.02	0.32	0.17	0.96	<0.02	-	0.03	-	0.42	0.34	<0.05	<0.02	<0.02	16.3	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051	MW51	0902_MW051_210503	3/05/2021	Normal	ES2116725	**367**	*80*	**11.2**	287	526	-	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	36.7	10.7	0.13	<0.02	<0.02	22.6	4.2	85.3	0.09	-	0.07	-	46.5	10.4	<0.05	<0.02	<0.02	595	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051	MW51	0902_QC200_210503	3/05/2021	Interlab_D	RN1314562	**333**	*83*	**14**	250	-	0.000023	<0.01	<0.01	0.084	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	46	10	<0.01	<0.01	<0.01	11	6.6	68	0.061	<0.05	0.019	<0.02	39	16	<0.02	<0.02	<0.01	543.684	-	-	-	-	-	-	-	-	-	-	-	-	-
MW052	MW52	0902_MW052_210503	3/05/2021	Normal	ES2116725	**14.5**	*0.27*	0.36	14.2	30.1	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.03	1.8	<0.02	<0.02	<0.02	0.16	0.9	4.86	<0.02	-	<0.02	-	4.54	2.7	<0.05	<0.02	<0.02	34.8	-	-	-	-	-	-	-	-	-	-	-	-	-
MW053	MW53	0902_MW053_210503	3/05/2021	Normal	ES2116725	**0.27**	*0.09*	0.07	0.18	1.23	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.2	<0.02	<0.02	<0.02	<0.02	0.07	0.29	<0.02	-	<0.02	-	0.03	0.24	<0.05	<0.02	<0.02	1.26	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054	MW54	0902_MW054_210504	4/05/2021	Normal	ES2116725	**0.17**	*<0.01*	<0.01	0.17	0.31	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	-	<0.02	-	0.06	<0.02	<0.05	<0.02	<0.02	0.37	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	MW56	0902_MW056_210507	7/05/2021	Normal	ES2117172	<0.01	*<0.01*	<0.01	<0.02	<0.01	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	-	-	-	-	-	-	-	-	-	-	-
MW057	MW57	0902_MW057_210504	4/05/2021	Normal	ES2116725	**0.84**	*0.12*	0.05	0.72	1.37	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19	0.1	<0.02	<0.02	<0.02	<0.02	0.02	0.11	<0.02	-	<0.02	-	0.08	0.06	<0.05	<0.02	<0.02	1.45	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	MW58	0902_MW058_210504	4/05/2021	Normal	ES2116725	**2.98**	*0.13*	0.39	2.85	7.83	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.34	0.2	<0.02	<0.02	<0.02	0.06	0.4	2.13	<0.02	-	<0.02	-	1.23	0.39	<0.05	<0.02	<0.02	9.12	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	MW59	0902_MW059_210507	7/05/2021	Normal	ES2117172	**3.99**	*0.07*	0.03	3.92	12.9	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.96	0.5	<0.02	<0.02	<0.02	<0.02	0.52	3.98	<0.02	-	<0.02	-	2.62	0.91	<0.05	<0.02	<0.02	15.5	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	MW60	0902_MW060_210504	4/05/2021	Normal	ES2116725	**2.58**	*0.54*	0.1	2.04	3.33	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19	<0.1	<0.02	<0.02	<0.02	0.08	0.05	0.34	<0.02	-	<0.02	-	0.25	0.07	<0.05	<0.02	<0.02	3.66	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	MW60	0902_QC201_210504	4/05/2021	Interlab_D	RN1314562	**2.3**	*0.4*	0.075	1.9	-	<0.00001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	0.18	<0.05	<0.01	<0.01	<0.01	0.045	0.039	0.27	<0.01	<0.05	<0.01	<0.02	0.21	0.059	<0.02	<0.02	<0.01	2.923	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	MW61	0902_MW061_210504	4/05/2021	Normal	ES2116725	**1.08**	*0.71*	0.04	0.37	1.55	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	<0.02	0.04	0.1	<0.02	-	<0.02	-	0.04	0.23	<0.05	<0.02	<0.02	1.59	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	MW62	0902_MW062_210504	4/05/2021	Normal	ES2116725	**0.44**	*0.3*	<0.01	0.14	0.44	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.44	-	-	-	-	-	-	-	-	-	-	-
MW063	MW63	0902_MW063_210504	4/05/2021	Normal	ES2116725	**9.5**	*2.76*	0.54	6.74	15.4	-

Table T3 - Surface Water Analytical Results

AECOM

								PFAS Full Suite																												Inorganics							Metals			
								Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFAS (WA DER List)	Perfluorononane sulfonate (PFNS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctadecanoic Acid (PFODA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropatimitic acid (PFHxDA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS	Nitrite + Nitrate as N	Ammonia as N	Kjeldahl Nitrogen Total	Total Phosphorus as P	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Aluminium	Bromine	Iron	Manganese
								µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	µg/L	mg/L	mg/L
LOR								0.01	0.01	0.01	0.02	0.01	0.00001	0.05	0.05	0.05	0.05	0.05	0.02	0.05	0.05	0.02	0.05	0.02	0.1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.01	0.01	10	0.1	0.01	0.01	0.01	100	0.01	100	0.05	0.001
PFAS NEMP 2020 Freshwater 99%									*0.00023*	*19*																																								
PFAS NEMP 2020 Recreational Water								**2**		**10**																																							
Location	**Historical Name**	**Field ID**	**Sampled Date**	**Sample Type**	**Lab Report**																																												
SW001	SW001	0902_SW001_210507	7/05/2021	Normal	ES2117172	**10.3**	*7.54*	0.85	2.73	15.9	-	<0.05	<0.05	0.27	0.42	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.4	0.5	0.14	0.46	0.08	0.18	0.54	1.53	0.45	-	<0.02	-	0.34	1.16	<0.05	<0.02	0.19	17.8	-	-	-	-	-	-	-	-	-	-	-
SW002	SW002	0902_SW002_210505	5/05/2021	Normal	ES2116725	**10**	*6.88*	0.67	3.16	16.1	-	<0.05	<0.05	0.26	0.17	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.22	0.4	<0.02	0.11	<0.02	0.51	0.47	2.17	0.2	-	<0.02	-	1.1	0.74	<0.05	<0.02	0.04	18.1	-	-	-	-	-	-	-	-	-	-	-
SW003	SW003	0902_SW003_210505	5/05/2021	Normal	ES2116725	**9.23**	*6.41*	0.58	2.82	15.3	-	<0.05	<0.05	0.33	0.14	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.63	0.4	0.03	0.18	<0.02	0.43	0.38	1.87	0.34	-	<0.02	-	0.86	0.7	<0.05	<0.02	0.05	17.2	0.04	360	14.6	6.95	0.04	<0.01	14,600	0.04	<100	0.54	0.046
SW005	SW005	0902_SW005_210506	6/05/2021	Normal	ES2117098	0.13	*0.05*	<0.01	0.08	0.13	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.13	-	-	-	-	-	-	-	-	-	-	-
SW007	SW007	0902_SW007_210506	6/05/2021	Normal	ES2117098	0.12	*0.05*	<0.01	0.07	0.16	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.16	-	-	-	-	-	-	-	-	-	-	-
SW008	SW008	0902_SW008_210506	6/05/2021	Normal	ES2117098	0.54	*0.19*	0.02	0.35	0.69	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	<0.1	<0.02	<0.02	<0.02	<0.02	0.06	<0.02	-	-	0.06	<0.02	<0.05	<0.02	<0.02	0.75	0.17	240	6.6	1.63	0.15	0.02	6800	0.06	1100	5.33	1.26
SW009	SW009	0902_SW009_210506	6/05/2021	Normal	ES2117098	**5.57**	*3.84*	0.14	1.73	6.6	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27	<0.1	<0.02	<0.02	<0.02	0.11	0.07	0.44	<0.02	-	<0.02	-	0.24	0.11	<0.05	<0.02	<0.02	6.95	0.37	130	0.6	0.21	0.36	0.01	1000	0.13	200	0.26	0.089
SW011	SW011	0902_QC204_210507	7/05/2021	Interlab_D	RN1314562	1.63	*1.3*	0.024	0.33	-	<0.00001	<0.01	<0.01	0.022	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	0.054	<0.05	<0.01	<0.01	<0.01	0.019	0.015	0.08	<0.01	<0.05	<0.01	<0.02	0.041	0.027	<0.02	<0.02	<0.01	1.87	-	-	-	-	-	-	-	-	-	-	-
SW011	SW011	0902_SW011_210507	7/05/2021	Normal	ES2117172	1.77	*1.38*	0.04	0.39	2.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	<0.1	<0.02	<0.02	<0.02	0.04	<0.02	0.13	<0.02	-	<0.02	-	0.06	0.04	<0.05	<0.02	<0.02	2.15	-	-	-	-	-	-	-	-	-	-	-
SW013	SW013	0902_SW013_210506	6/05/2021	Normal	ES2117098	0.3	*0.16*	<0.01	0.14	0.45	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	-	<0.02	-	<0.02	0.02	<0.05	<0.02	<0.02	0.45	-	-	-	-	-	-	-	-	-	-	-
SW014	SW014	0902_SW014_210506	6/05/2021	Normal	ES2117098	**4.07**	*0.6*	0.15	3.47	7.16	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.64	0.2	<0.02	<0.02	<0.02	0.09	0.13	1.68	<0.02	-	<0.02	-	0.53	0.31	<0.05	<0.02	<0.02	7.8	-	-	-	-	-	-	-	-	-	-	-
SW014	SW014	0902_QC102_210506	6/05/2021	Field_D	ES2117098	**5.6**	*0.8*	0.2	4.8	7.3	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.63	0.2	<0.02	<0.02	<0.02	0.1	0.11	1.7	<0.02	-	<0.02	-	0.53	0.39	<0.05	<0.02	<0.02	9.46	-	-	-	-	-	-	-	-	-	-	-
SW015	SW015	0902_SW015_210505	5/05/2021	Normal	ES2117098	0.22	*0.09*	<0.01	0.13	0.22	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.22	0.21	1540	2.5	0.29	0.17	0.04	2700	0.01	1700	0.08	2.15
SW016	SW016	0902_SW016_210505	5/05/2021	Normal	ES2117098	0.05	*0.03*	<0.01	0.02	0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.05	0.23	2620	8.5	1.79	0.17	0.06	8700	0.03	300	1.38	0.896
SW018	SW018	0902_QC104_210506	6/05/2021	Field_D	ES2117098	1.34	*0.72*	0.04	0.62	1.15	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	<0.02	0.1	<0.02	-	-	0.06	0.03	<0.05	<0.02	<0.02	1.65	-	-	-	-	-	-	-	-	-	-	-
SW018	SW018	0902_SW018_210506	6/05/2021	Normal	ES2117098	1.16	*0.62*	0.04	0.55	1.14	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	0.02	0.02	0.09	<0.02	-	<0.02	-	0.05	0.02	<0.05	<0.02	<0.02	1.44	-	-	-	-	-	-	-	-	-	-	-
SW019	SW019	0902_SW019_210507	7/05/2021	Normal	ES2117172	0.07	*0.04*	<0.01	0.03	0.07	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.07	-	-	-	-	-	-	-	-	-	-	-
SW020	SW020	0902_SW020_210507	7/05/2021	Normal	ES2117172	0.19	*0.17*	0.01	0.02	0.2	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.2	0.81	110	1.9	0.28	0.78	0.03	2700	0.15	300	0.44	0.088
SW022	SW022	0902_SW022_210505	5/05/2021	Normal	ES2117098	0.02	*0.02*	<0.01	<0.02	0.02	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.02	0.48	270	1.3	0.27	0.45	0.03	1800	0.11	200	0.22	0.077
SW023	SW023	0902_SW023_210506	6/05/2021	Normal	ES2117098	**2.47**	*1.66*	0.08	0.81	2.96	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	<0.1	<0.02	<0.02	<0.02	0.08	0.04	0.21	<0.02	-	<0.02	-	0.12	0.05	<0.05	<0.02	<0.02	3.16	2.5	410	1.6	0.17	2.45	0.05	4100	0.03	1000	0.51	1.08
SW024	SW024	0902_SW024_210505	5/05/2021	Normal	ES2117098	<0.01	*<0.01*	<0.01	<0.02	<0.01	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	-	-	-	-	-	-	-	-	-	-	-
SW030	SW030	0902_SW030_210507	7/05/2021	Normal	ES2117172	0.06	*0.04*	<0.01	0.02	0.06	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.06	-	-	-	-	-	-	-	-	-	-	-
SW032	SW032	0902_SW032_210504	4/05/2021	Normal	ES2116724	1.38	*0.76*	0.04	0.62	1.78	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	<0.1	<0.02	<0.02	<0.02	0.03	0.02	0.16	<0.02	-	<0.02	-	0.09	0.06	<0.05	<0.02	<0.02	1.9	0.09	190	1.7	0.22	0.09	<0.01	1800	0.06	600	0.77	0.691
SW035	SW035	0902_SW035_210506	6/05/2021	Normal	ES2117098	0.05	*0.05*	<0.01	<0.02	0.07	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	0.02	<0.05	<0.02	<0.02	0.07	0.06	30	2	0.61	0.06	<0.01	2100	0.13	100	3.1	0.354
SW037	SW037	0902_SW037_210505	5/05/2021	Normal	ES2116725	0.26	*0.19*	<0.01	0.07	0.28	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.28	-	-	-	-	-	-	-	-	-	-	-

Notes:

LOR	Limit of Reporting
Normal	Primary Sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first time detection above LOR for PFOS+PFHxS or PFOA
	Denotes new exceedence of human health screening criteria for PFOS+PFHxS or PFOA

Table T4 - Sediment Analytical Results

AECOM

							PFAS Full Suite																																	
							Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFAS (WA DER List)	Perfluorononane sulfonate (PFNS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctadecanoic Acid (PFODA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropalmitic acid (PFHxDA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR							0.0002	0.0002	0.0002	0.0002	0.0002	0.01	0.0005	0.0005	0.0005	0.0005	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0002	0.001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.005	0.0002	0.002	0.0002	0.0002	0.0005	0.0002	0.0002	0.0002
Location	**Historical Name**	**Field ID**	**Sampled Date**	**Sample Type**	**Lab Report**																																			
SD001	SD001	0902_QC107_210507	7/05/2021	Field_D	ES2117172		2.83	2.78	0.0493	0.0498	8.18	-	0.323	<0.001	0.0458	5.22	<0.0025	<0.001	0.0899	<0.0025	<0.001	<0.0025	0.0031	<0.005	0.318	3.81	3.95	0.0422	0.0146	0.0146	0.494	-	0.121	-	0.0031	0.0067	0.117	0.417	5.53	23.4
SD001	SD001	0902_SD001_210507	7/05/2021	Normal	ES2117172		1.99	1.98	0.0124	0.0135	3.85	-	0.0914	<0.0005	0.0158	1.81	<0.0012	<0.0005	0.0127	<0.0012	<0.0005	<0.0012	0.0012	<0.002	0.0576	1.1	0.77	0.0086	0.0051	0.0068	0.112	-	0.0251	-	0.0006	0.0035	0.0488	0.159	1.22	7.45
SD002	SD002	0902_SD002_210505	5/05/2021	Normal	ES2116725		0.659	0.599	0.0107	0.0599	0.697	-	0.0043	<0.001	0.0021	0.0048	<0.0025	<0.001	<0.0025	<0.0025	<0.001	<0.0025	0.0036	<0.005	0.0122	0.0198	0.0344	0.0083	0.0033	0.0074	0.0107	-	0.0186	-	0.0051	0.0059	0.0056	0.0092	0.0282	0.853
SD003	SD003	0902_SD003_210505	5/05/2021	Normal	ES2116725		0.707	0.63	0.0105	0.0771	0.749	-	<0.0005	<0.0005	0.001	0.001	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0041	0.003	0.0288	0.0198	0.023	0.0092	0.0039	0.0109	0.0096	-	0.0128	-	0.0066	0.0077	0.0025	0.0049	0.0211	0.888
SD005	SD005	0902_SD005_210506	6/05/2021	Normal	ES2117098		0.0128	0.0116	<0.0002	0.0012	0.013	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.013
SD007	SD007	0902_SD007_210506	6/05/2021	Normal	ES2117098		0.0014	0.0012	<0.0002	0.0002	0.0019	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0019
SD008	SD008	0902_SD008_210506	6/05/2021	Normal	ES2117098		0.0063	0.0043	<0.0002	0.002	0.0067	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0004	<0.001	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0069
SD009	SD009	0902_SD009_210506	6/05/2021	Normal	ES2117098		0.0749	0.0712	0.0005	0.0037	0.0765	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0066	0.0009	0.001	0.0007	0.0003	0.0004	0.0005	-	0.0004	-	<0.0002	0.0004	<0.0005	<0.0002	0.0012	0.0878
SD011	SD011	0902_SD011_210507	7/05/2021	Normal	ES2117172		0.0332	0.0311	<0.0002	0.0021	0.0332	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0012	0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	0.0003	0.0352
SD013	SD013	0902_SD013_210506	6/05/2021	Normal	ES2117098		0.0298	0.0276	0.0006	0.0022	0.0317	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0003	<0.0002	<0.0002	0.0002	0.0004	0.0006	<0.0002	-	<0.0002	-	<0.0002	0.0003	<0.0005	<0.0002	<0.0002	0.0322
SD014	SD014	0902_QC202_210506	6/05/2021	Interlab_D	RN1314562		0.15	0.094	<0.01	0.056	-	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.01	<0.01	0.013	<0.01	<0.01	0.014	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.15
SD014	SD014	0902_SD014_210506	6/05/2021	Normal	ES2117098		0.115	0.0625	0.0032	0.0523	0.143	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006	0.0044	<0.001	0.001	0.0011	0.006	0.0027	0.0014	0.0151	<0.0002	-	0.0003	-	0.0054	0.0041	<0.0006	0.001	0.0028	0.163
SD015	SD015	0902_SD015_210505	5/05/2021	Normal	ES2117098		0.0053	0.0048	<0.0002	0.0005	0.0053	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0009	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0062
SD016	SD016, PW004	0902_SD016_210505	5/05/2021	Normal	ES2117098		0.0086	0.008	0.0005	0.0006	0.0054	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0091
SD019	SD019	0902_SD019_210507	7/05/2021	Normal	ES2117172		0.0042	0.0036	0.0002	0.0006	0.0036	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0044
SD020	SD020	0902_SD020_210507	7/05/2021	Normal	ES2117172		0.006	0.006	<0.0002	<0.0002	0.0044	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.006
SD022	SD022	0902_SD022_210505	5/05/2021	Normal	ES2117098		0.0039	0.0036	0.0002	0.0003	0.0041	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0012	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0032	0.0005	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0095
SD024	SD024	0902_SD024_210505	5/05/2021	Normal	ES2117098		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002
SD030	SD030_PW003	0902_SD030_210507	7/05/2021	Normal	ES2117172		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002
SD032	SD032	0902_SD032_210504	4/05/2021	Normal	ES2116724		0.0335	0.0293	0.0008	0.0042	0.0352	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	0.0007	<0.0002	0.0007	<0.0002	-	<0.0002	-	<0.0002	0.0002	<0.0005	<0.0002	<0.0002	0.0359
SD035	SD035	0902_SD035_210506	6/05/2021	Normal	ES2117098		0.0021	0.0021	<0.0002	<0.0002	0.0021	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0021

Notes:
LOR Limit of Reporting
Normal Primary Sample
Field_D Intra-laboratory duplicate sample
Interlab_D Inter-laboratory duplicate sample
Denotes first time detection above LOR for PFOS+PFHxS or PFOA

Table T5 Historical Groundwater Analytical Results

AECOM

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Table T5 Historical Groundwater Analytical Results

AECOM

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Table T5 Historical Groundwater Analytical Results

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Table T5 Historical Groundwater Analytical Results

AECOM

						PFAS Full Suite																																
						Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorononane sulfonate (PFNS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctadecanoic Acid (PFODA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropalmitic acid (PFHxDA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS
						µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.00001	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.01	0.02	0.01	0.02	0.02	0.02	0.01	0.01
PFAS NEMP 2020 Drinking Water						**0.07**		**0.56**																														
PFAS NEMP 2020 Freshwater 99%							*0.00023*	*19*																														
Location	**Historical Name**	**Field ID**	**Sampled Date**	**Sample Type**																																		
MW060	MW60	0902_MW60_050717	5/07/2017	Normal	**3.71**	*0.73*	0.1	2.98	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24	<0.1	<0.02	<0.02	<0.02	0.09	0.06	0.25	<0.02	-	<0.02	-	0.36	<0.02	<0.05	<0.02	<0.02	4.81
MW060	MW60	0902_MW060_191114	14/11/2019	Normal	**2.38**	*0.44*	0.09	1.94	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17	<0.1	<0.02	<0.02	<0.02	0.07	0.04	0.31	<0.02	-	<0.02	-	0.23	0.06	<0.05	<0.02	<0.02	3.35
MW060	MW60	0902_MW060_200512	12/05/2020	Normal	**2.72**	*0.52*	0.1	2.2	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19	<0.1	<0.02	<0.02	<0.02	0.09	0.05	0.33	<0.02	-	<0.02	-	0.23	0.06	<0.05	<0.02	<0.02	3.77
MW060	MW60	0902_MW060_201111	11/11/2020	Normal	**2.09**	*0.44*	0.07	1.65	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14	<0.1	<0.02	<0.02	<0.02	0.07	0.04	0.26	<0.02	-	<0.02	-	0.23	0.05	<0.05	<0.02	<0.02	2.95
MW060	MW60	0902_QC201_210504	4/05/2021	Interlab_D	**2.3**	*0.4*	0.075	1.9	<0.00001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	0.18	<0.05	<0.01	<0.01	<0.01	0.045	0.039	0.27	<0.01	<0.05	<0.01	<0.02	0.21	0.059	<0.02	<0.02	<0.01	3.178
MW060	MW60	0902_MW060_210504	4/05/2021	Normal	**2.58**	*0.54*	0.1	2.04	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19	<0.1	<0.02	<0.02	<0.02	0.08	0.05	0.34	<0.02	-	<0.02	-	0.25	0.07	<0.05	<0.02	<0.02	3.66
MW061	MW61	0902_MW61_050717	5/07/2017	Normal	**2.45**	*1.02*	0.1	1.43	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	<0.1	<0.02	<0.02	<0.02	0.04	0.09	0.13	<0.02	-	<0.02	-	0.12	<0.02	<0.05	<0.02	<0.02	3.05
MW061	MW61	0902_MW061_191114	14/11/2019	Normal	**3.61**	*1.3*	0.15	2.31	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24	<0.1	<0.02	<0.02	<0.02	0.11	0.06	0.4	<0.02	-	<0.02	-	0.26	0.1	<0.05	<0.02	<0.02	4.93
MW061	MW61	0902_MW061_200512	12/05/2020	Normal	**1.47**	*0.61*	0.06	0.86	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15	<0.1	<0.02	<0.02	<0.02	0.04	0.04	0.18	<0.02	-	<0.02	-	0.06	0.1	<0.05	<0.02	<0.02	2.1
MW061	MW61	0902_MW061_201111	11/11/2020	Normal	**0.7**	*0.38*	0.03	0.32	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	<0.02	0.03	0.07	<0.02	-	<0.02	-	0.03	0.04	<0.05	<0.02	<0.02	0.94
MW061	MW61	0902_MW061_210504	4/05/2021	Normal	**1.08**	*0.71*	0.04	0.37	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	<0.02	0.04	0.1	<0.02	-	<0.02	-	0.04	0.23	<0.05	<0.02	<0.02	1.59
MW062	MW62	0902_MW62_050717	5/07/2017	Normal	**0.82**	*0.51*	0.01	0.31	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	-	<0.02	-	0.03	<0.02	<0.05	<0.02	<0.02	0.92
MW062	MW62	0902_QC203_050717	5/07/2017	Interlab_D	**0.22**	*0.08*	<0.01	0.14	-	<0.01	<0.01	<0.01	<0.01	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.03	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	0.03	<0.01	-	<0.1	-	0.05	<0.02	<0.5	<0.1	<0.02	0.33
MW062	MW62	0902_MW062_191114	14/11/2019	Normal	**0.48**	*0.28*	<0.05	0.2	-	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	-	<0.05	<0.05	<0.12	<0.05	<0.05	0.48
MW062	MW62	0902_MW062_200512	12/05/2020	Normal	**0.95**	*0.64*	0.01	0.31	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	0.05	<0.02	-	<0.02	-	0.02	0.03	<0.05	<0.02	<0.02	1.08
MW062	MW62	0902_MW062_201111	11/11/2020	Normal	**0.66**	*0.43*	0.01	0.23	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	<0.02	-	<0.02	-	<0.02	0.04	<0.05	<0.02	<0.02	0.76
MW062	MW62	0902_MW062_210504	4/05/2021	Normal	**0.44**	*0.3*	<0.01	0.14	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.44
MW063	MW63	0902_MW63_050717	5/07/2017	Normal	**21.5**	*1.47*	**1.08**	20	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.92	<0.1	<0.02	<0.02	<0.02	1.16	0.33	3.33	<0.02	-	<0.02	-	2.96	0.94	<0.05	<0.02	<0.02	36.2
MW063	MW63	0902_QC204_050717	5/07/2017	Interlab_D	**20.6**	*1.6*	**0.65**	19	-	<0.01	<0.01	0.02	<0.01	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	5.8	<0.2	<0.02	<0.02	<0.05	1.6	0.24	3.4	<0.01	-	<0.1	-	6	0.31	<0.5	<0.1	<0.02	38.62
MW063	MW63	0902_MW063_191114	14/11/2019	Normal	**10.9**	*1.51*	**0.58**	9.4	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.6	0.2	<0.02	<0.02	<0.02	0.57	0.26	2.26	<0.02	-	<0.02	-	1.6	0.42	<0.05	<0.02	<0.02	18.4
MW063	MW63	0902_MW063_200512	12/05/2020	Normal	**9.59**	*1.37*	**0.63**	8.22	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.78	0.3	<0.02	<0.02	<0.02	0.74	0.33	2.49	<0.02	-	<0.02	-	1.68	0.48	<0.05	<0.02	<0.02	18
MW063	MW63	0902_MW063_201111	11/11/2020	Normal	**8.99**	*1.68*	0.39	7.31	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.12	0.2	<0.02	<0.02	<0.02	0.48	0.21	1.63	<0.02	-	<0.02	-	1.22	0.32	<0.05	<0.02	<0.02	14.6
MW063	MW63	0902_MW063_210504	4/05/2021	Normal	**9.5**	*2.76*	0.54	6.74	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.95	0.3	<0.02	<0.02	<0.02	0.83	0.29	2.33	<0.02	-	<0.02	-	1.83	0.46	<0.05	<0.02	<0.02	18
MW064	MW64	0902_MW64_040717	4/07/2017	Normal	**0.98**	*0.22*	<0.01	0.76	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	2.7	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	-	0.12	<0.02	<0.05	<0.02	<0.02	3.98
MW064	MW64	0902_MW64_191113	13/11/2019	Normal	**1.16**	*0.27*	0.02	0.89	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	<0.1	<0.02	<0.02	<0.02	0.04	<0.02	0.03	<0.02	-	<0.02	-	0.1	<0.02	<0.05	<0.02	<0.02	1.45
MW064	MW64	0902_MW064_200511	11/05/2020	Normal	**1.14**	*0.3*	0.02	0.84	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	<0.1	<0.02	<0.02	<0.02	0.03	<0.02	0.03	<0.02	-	<0.02	-	0.12	<0.02	<0.05	<0.02	<0.02	1.43
MW064	MW64	0902_MW064_201110	10/11/2020	Normal	**0.92**	*0.24*	0.01	0.68	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	<0.1	<0.02	<0.02	<0.02	0.03	<0.02	0.02	<0.02	-	<0.02	-	0.09	<0.02	<0.05	<0.02	<0.02	1.14
MW064	MW64	0902_MW064_210504	4/05/2021	Normal	**1.28**	*0.34*	0.02	0.94	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15	<0.1	<0.02	<0.02	<0.02	0.04	<0.02	0.04	<0.02	-	<0.02	-	0.13	<0.02	<0.05	<0.02	<0.02	1.66
MW065	MW65	0902_MW65_040717	4/07/2017	Normal	**0.47**	*0.05*	<0.01	0.42	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	<0.02	-	<0.02	-	0.06	<0.02	<0.05	<0.02	<0.02	0.59
MW065	MW65	0902_MW065_191113	13/11/2019	Normal	**0.33**	*0.03*	<0.01	0.3	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	-	<0.02	-	0.04	<0.02	<0.05	<0.02	<0.02	0.4
MW065	MW65	0902_QC200_200511	11/05/2020	Interlab_D	**0.2**	*<0.02*	<0.01	0.2	<0.00001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	0.028	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.02	0.03	<0.02	<0.02	<0.02	<0.01	0.258
MW065	MW65	0902_MW065_200511	11/05/2020	Normal	**0.26**	*0.02*	<0.01	0.24	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	0.04	<0.02	<0.05	<0.02	<0.02	0.33
MW065	MW65	0902_MW065_201110	10/11/2020	Normal	**0.2**	*0.02*	<0.01	0.18	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	0.03	<0.02	<0.05	<0.02	<0.02	0.27
MW065	MW65	0902_MW065_210504	4/05/2021	Normal	**0.26**	*0.02*	<0.01	0.24	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	0.04	<0.02	<0.05	<0.02	<0.02	0.34
MW066	MW66	0902_MW66_040717	4/07/2017	Normal	**0.84**	*0.18*	<0.01	0.66	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	0.02	<0.02	-	<0.02	-	0.1	<0.02	<0.05	<0.02	<0.02	1.09
MW066	MW66	0902_MW066_191113	13/11/2019	Normal	**1.13**	*0.35*	0.02	0.78	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	<0.1	<0.02	<0.02	<0.02	0.04	<0.02	0.06	<0.02	-	<0.02	-	0.09	<0.02	<0.05	<0.02	<0.02	1.42
MW066	MW66	0902_MW066_200511	11/05/2020	Normal	**1.04**	*0.31*	0.02	0.73	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	<0.1	<0.02	<0.02	<0.02	0.03	<0.02	0.05	<0.02	-	<0.02	-	0.1	<0.02	<0.05	<0.02	<0.02	1.31
MW066	MW66	0902_MW066_201110	10/11/2020	Normal	**0.92**	*0.27*	0.02	0.65	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	<0.1	<0.02	<0.02	<0.02	0.03	<0.02	0.04	<0.02	-	<0.02	-	0.08	<0.02	<0.05	<0.02	<0.02	1.16
MW066	MW66	0902_MW066_210504	4/05/2021	Normal	**1.22**	*0.37*	0.02	0.85	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13	<0.1	<0.02	<0.02	<0.02	0.04	<0.02	0.07	<0.02	-	<0.02	-	0.12	<0.02	<0.05	<0.02	<0.02	1.6
MW067	MW67	0902_MW67_050717	5/07/2017	Normal	0.03	*0.01*	<0.01	0.02	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.03
MW067	MW67	0902_MW067_191114	14/11/2019	Normal	0.04	*0.01*	<0.01	0.03	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.04
MW067	MW67	0902_MW067_200515	15/05/2020	Normal	0.06	*0.02*	<0.01	0.04	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.06
MW067	MW67	0902_QC110_200515	15/05/2020	Field_D	0.04	*0.01*	<0.01	0.03	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.04
MW067	MW67	0902_MW067_201111	11/11/2020	Normal	0.03	*<0.01*	<0.01	0.03	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.03
MW067	MW67	0902_MW067_210505	5/05/2021	Normal	0.04	*0.01*	<0.01	0.03	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.04
MW068	MW68	0902_MW68_050717	5/07/2017	Normal	**2.32**	*0.32*	0.06	2	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	<0.1	<0.02	<0.02	<0.02	0.05	0.03	0.13	<0.02	-	<0.02	-	0.22	<0.02	<0.05	<0.02	<0.02	2.93
MW068	MW68	0902_MW68_191114	14/11/2019	Normal	**0.28**	*0.04*	<0.01	0.24	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	-	<0.02	-	0.02	<0.02	<0.05	<0.02	<0.02	0.33
MW068	MW68	0902_MW68_200512	12/05/2020	Normal	**0.52**	*0.08*	0.02	0.44	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	<0.02	-	<0.02	-	0.04	<0.02	<0.05	<0.02	<0.02	0.65
MW068	MW68	0902_MW68_201111	11/11/2020	Normal	**0.74**	*0.11*	0.02	0.63	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	0.08	<0.02	-	<0.02	-	0.07	<0.02	<0.05	<0.02	<0.02	0.97
MW068	MW68	0902_MW68_210504	4/05/2021	Normal	**2.15**	*0.3*	0.07	1.85	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19	<0.1	<0.02	<0.02	<0.02	0.07	0.02	0.23	<0.02	-	<0.02	-	0.19	0.05	<0.05	<0.02	<0.02	2.97
MW069	MW69	0902_MW69_050717	5/07/2017	Normal	**1.02**	*0.65*	0.03	0.37	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	-	<0.02	-	0.04	<0.02	<0.05	<0.02	<0.02	1.2
MW069	MW69	0902_MW069_191114	14/11/2019	Normal	**0.82**	*0.5*	0.03	0.32	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	<0.02	-	<0.02	-	0.04	0.02	<0.05	<0.02	<0.02	1.01
MW069	MW69	0902_QC210_200515	15/05/2020	Interlab_D	**0.56**	*0.32*	0.024	0.24	<0.00001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	0.041	<0.05	<0.01	<0.01	<0.01	<0.01	0.012	0.035	<0.01	<0.05	<0.01	<0.02	0.026	<0.02	<0.02	<0.02	<0.01	0.698
MW069	MW69	0902_MW069_200515	15/05/2020	Normal	**1.15**	*0.73*	0.05	0.42	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	0.06	<0.02	-	<0.02	-	0.05	0.02	<0.05	<0.02	<0.02	1.43
MW069	MW69	0902_MW069_201111	11/11/2020	Normal	**0.63**	*0.4*	0.02	0.23	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	-	<0.02	-	0.03	<0.02	<0.05	<0.02	<0.02	0.76
MW069	MW69	0902_MW069_210505	5/05/2021	Normal	**0.35**	*0.2*	0.01	0.15	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.42
MW070	MW70	0902_MW70_050717	5/07/2017	Normal	**3.3**	*1.22*	0.17	2.08	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.54	<0.1	<0.02	<0.02	<0.02	0.07	0.06	0.28	<0.02	-	<0.02	-	0.2	0.18	<0.05	<0.02	<0.02	4.8
MW070	MW70	0902_MW070_200515	15/05/2020	Normal	**2.71**	*1.23*	0.2	1.48	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.36	0.1	<0.02	<0.02	<0.02	0.07	0.1	0.32	<0.02	-	<0.02	-	0.16	0.17	<0.05	<0.02	<0.02	4.19
MW070	MW70	0902_MW070_201113	13/11/2020	Normal	**0.91**	*0.43*	0.05	0.48	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	<0.1	<0.02	<0.02	<0.02	0.02	0.03	0.12	<0.02	-	<0.02	-	0.04	0.06	<0.05	<0.02	<0.02	1.35
MW070	MW70	0902_MW070_210504	4/05/2021	Normal	**1.75**	*0.88*	0.1	0.87	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.64	0.1	<0.02	<0.02	<0.02	0.04	0.05	0.31	<0.02	-	<0.02	-	0.13	0.18	<0.05	<0.02	<0.02	3.3
MW071	MW71	0902_MW71_040717	4/07/2017	Normal	**2.04**	*1.72*	0.09	0.32	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.38	<0.1	<0.02	<0.02	<0.02	0.03	0.03	0.09	<0.02	-	<0.02	-	0.02	0.11	<0.05	<0.02	<0.02	2.79
MW071	MW71	0902_MW071_191114	14/11/2019	Normal	**2.35**	*1.76*	0.08	0.59	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.1	<0.02	<0.02	<0.02	0.04	0.05	0.19	<0.02	-	<0.02	-	0.07	0.18	<0.05	<0.02	<0.02	3.22
MW071	MW71	0902_MW071_200515	15/05/2020	Normal	**3.63**	*2.98*	0.1	0.65	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.36	0.1	<0.02	<0.02	<0.02	0.06	0.09	0.27	<0.02	-	<0.02	-	0.09	0.3	<0.05	<0.02	<0.02	5
MW071	MW71	0902_QC111_200515	15/05/2020	Field_D	**2.38**	*1.93*	0.06	0.45	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.26	<0.1	<0.02	<0.02	<0.02	0.04	0.06	0.18	<0.02	-	<0.02	-	0.06	0.2	<0.05	<0.02	<0.02	3.24
MW071	MW71	0902_MW071_201113	13/11/2020	Normal	**1.89**	*1.53*	0.05	0.36	-	<0.05	<0.05	<0.05

Table T5 Historical Groundwater Analytical Results

AECOM

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Table T6 Historical Surface Water Analytical Results

AECOM

							PFAS Full Suite																														
							Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorononane sulfonate (PFNS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctadecanoic Acid (PFODA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropalmitic acid (PFHxDA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS
							µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.01	0.01	0.01	0.01	0.00001	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.01	0.02	0.01	0.02	0.02	0.02	0.01	0.01
PFAS NEMP 2020 Freshwater 99%								*0.00023*	*19*																													
PFAS NEMP 2020 Recreational Water							**2**		**10**																													
Location	**Historical Name**	**Field ID**	**Sampled Date**	**Sample Type**																																		
SW001	SW001	0902_QC107_030717	3/07/2017	Field_D	**11.8**	*10.6*	**10.1**	1.17	-	0.14	0.61	477	16.4	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.87	3.2	0.23	7.79	1.5	0.21	2.31	53.5	7.49	-	0.53	-	0.71	8.9	<0.05	0.02	1.14	604
SW001	SW001	0902_SW001_030717	3/07/2017	Normal	**11.1**	*10.3*	9.02	0.78	-	0.2	0.13	712	25.6	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.52	4.8	<0.02	9.37	1.22	0.18	3.93	50.6	9	-	0.07	-	0.43	7.62	<0.05	<0.02	1.19	847
SW001	SW001	0902_QC100_191104	4/11/2019	Field_D	**82**	*77.9*	8.8	4.08	-	1.56	<0.05	8.88	49.5	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.7	2	2.01	49.6	11.3	0.43	3.42	4.01	13.6	-	0.92	-	0.52	3.08	0.21	0.75	36.2	279
SW001	SW001	0902_SW001_191104	4/11/2019	Normal	**66.8**	*62.8*	8.32	3.99	-	0.46	<0.05	8.72	49.2	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.71	1.9	1.23	47	4.05	0.48	3.34	3.81	15.1	-	0.42	-	0.51	3.08	0.1	0.23	14.1	230
SW001	SW001	0902_QC108_201113	13/11/2020	Field_D	**44.7**	*41.2*	5.08	3.48	-	0.59	<0.05	7.36	24.2	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.68	2.3	0.49	13.4	4.85	0.31	3.17	5	9.36	-	0.24	-	0.46	3.78	0.82	1.22	6.65	135
SW001	SW001	0902_SW001_201113	13/11/2020	Normal	**18.1**	*14.6*	4.98	3.49	-	<0.05	<0.05	7.36	8.2	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.67	2.2	0.1	5.78	0.2	0.24	3.16	5.54	9.32	-	0.02	-	0.42	4.08	0.05	0.05	0.59	71
SW001	SW001	0902_SW001_210507	7/05/2021	Normal	**10.3**	*7.54*	0.85	2.73	-	<0.05	<0.05	0.27	0.42	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.4	0.5	0.14	0.46	0.08	0.18	0.54	1.53	0.45	-	<0.02	-	0.34	1.16	<0.05	<0.02	0.19	17.8
SW002	SW002	0902_SW002_040717	4/07/2017	Normal	**83.9**	*53.5*	5.28	30.4	-	<0.05	0.06	123	4.85	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.08	3	<0.02	1.84	0.09	2.55	2.54	24.7	3.56	-	0.05	-	3.62	3.7	<0.05	<0.02	0.16	267
SW002	SW002	0902_SW002_191104	4/11/2019	Normal	**13.4**	*10.9*	0.74	2.55	-	<0.05	<0.05	0.72	1.51	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.45	0.4	0.02	0.98	0.02	0.23	0.42	1.12	0.93	-	<0.02	-	0.42	0.66	<0.05	<0.02	0.19	22.3
SW002	SW002	0902_SW002_200514	14/05/2020	Normal	**16.6**	*13.7*	0.3	2.94	-	<0.05	<0.05	0.1	0.19	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.36	0.1	0.02	0.17	<0.02	0.36	0.13	0.72	0.08	-	0.03	-	0.34	0.25	<0.05	<0.02	0.03	19.8
SW002	SW002	0902_QC208_201113	13/11/2020	Interlab_D	**15.9**	*11*	0.37	4.9	<0.00001	<0.01	<0.01	0.051	0.048	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	0.69	0.24	<0.01	0.033	<0.01	0.3	0.19	1.4	0.034	<0.05	<0.01	<0.02	0.6	0.36	<0.02	<0.02	0.016	20.232
SW002	SW002	0902_SW002_201113	13/11/2020	Normal	**22.4**	*16.5*	0.36	5.92	-	<0.05	<0.05	0.06	0.06	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.66	0.2	<0.02	0.03	<0.02	0.4	0.2	1.63	0.04	-	<0.02	-	0.69	0.36	<0.05	<0.02	<0.02	27.1
SW002	SW002	0902_SW002_210505	5/05/2021	Normal	**10**	*6.88*	0.67	3.16	-	<0.05	<0.05	0.26	0.17	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.22	0.4	<0.02	0.11	<0.02	0.51	0.47	2.17	0.2	-	<0.02	-	1.1	0.74	<0.05	<0.02	0.04	18.1
SW003	SW003	0902_SW003_040717	4/07/2017	Normal	**76.1**	*52.7*	3.34	23.4	-	<0.05	<0.05	43.4	1.08	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.95	2.4	<0.02	0.57	<0.02	1.7	2.27	15.1	0.98	-	0.05	-	3.44	2.63	<0.05	<0.02	0.04	157
SW003	SW003	0902_SW003_191111	11/11/2019	Normal	**24.2**	*15.8*	0.77	8.37	-	<0.05	<0.05	0.44	0.24	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.21	0.4	<0.02	0.26	<0.02	0.5	0.37	2.24	0.33	-	<0.02	-	0.94	0.82	<0.05	<0.02	0.05	32.7
SW003	SW003	0902_SW003_200514	14/05/2020	Normal	**27.8**	*21.2*	0.65	6.56	-	<0.05	<0.05	0.24	0.34	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.87	0.2	0.05	0.39	0.02	0.68	0.26	1.68	0.26	-	0.02	-	0.9	0.5	<0.05	<0.02	0.05	34.9
SW003	SW003	0902_SW003_201113	13/11/2020	Normal	**21.6**	*15.7*	0.38	5.85	-	<0.05	<0.05	0.06	0.09	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.66	0.2	0.05	0.06	0.03	0.41	0.17	1.5	0.06	-	<0.02	-	0.71	0.35	<0.05	<0.02	0.04	26.3
SW003	SW003	0902_SW003_210505	5/05/2021	Normal	**9.23**	*6.41*	0.58	2.82	-	<0.05	<0.05	0.33	0.14	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.63	0.4	0.03	0.18	<0.02	0.43	0.38	1.87	0.34	-	<0.02	-	0.86	0.7	<0.05	<0.02	0.05	17.2
SW005	SW005	0902_SW005_040717	4/07/2017	Normal	0.12	*0.08*	<0.01	0.04	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.12
SW005	SW005	0902_SW005_191108	8/11/2019	Normal	0.13	*0.11*	<0.01	0.02	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.13
SW005	SW005	0902_QC106_200514	14/05/2020	Field_D	0.18	*0.11*	<0.01	0.07	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.18
SW005	SW005	0902_SW005_200514	14/05/2020	Normal	0.15	*0.08*	<0.01	0.07	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.15
SW005	SW005	0902_QC104_201112	12/11/2020	Field_D	0.04	*0.04*	<0.01	<0.02	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.04
SW005	SW005	0902_SW005_201112	12/11/2020	Normal	0.06	*0.04*	<0.01	0.02	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.06
SW005	SW005	0902_SW005_210506	6/05/2021	Normal	0.13	*0.05*	<0.01	0.08	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.13
SW007	SW007	0902_SW007_040717	4/07/2017	Normal	0.23	*0.12*	0.01	0.11	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	-	<0.02	-	0.02	<0.02	<0.05	<0.02	<0.02	0.29
SW007	SW007	0902_SW007_191108	8/11/2019	Normal	0.26	*0.12*	<0.01	0.14	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.32
SW007	SW007	0902_QC206_200514	14/05/2020	Interlab_D	0.102	*0.038*	<0.01	0.064	<0.00001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	0.017	<0.05	<0.01	<0.01	<0.01	<0.01	0.014	<0.01	<0.05	<0.01	<0.02	0.012	<0.02	<0.02	<0.02	<0.01	0.145
SW007	SW007	0902_SW007_200514	14/05/2020	Normal	0.14	*0.05*	<0.01	0.09	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.18
SW007	SW007	0902_QC204_201112	12/11/2020	Interlab_D	0.104	*0.062*	<0.01	0.042	<0.00001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	0.104
SW007	SW007	0902_SW007_201112	12/11/2020	Normal	0.16	*0.1*	<0.01	0.06	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.16
SW007	SW007	0902_SW007_210506	6/05/2021	Normal	0.12	*0.05*	<0.01	0.07	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.16
SW008	SW008	0902_SW008_030717	3/07/2017	Normal	0.37	*0.24*	0.02	0.13	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.44
SW008	SW008	0902_SW008_191108	8/11/2019	Normal	1.36	*1.01*	0.05	0.35	-	<0.05	<0.05	0.1	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	0.03	0.02	0.14	<0.02	-	<0.02	-	0.04	0.06	<0.05	<0.02	<0.02	1.84
SW008	SW008	0902_QC208_200513	13/05/2020	Interlab_D	0.26	*0.12*	0.01	0.14	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	0.02	<0.02	<0.05	<0.02	<0.02	0.35
SW008	SW008	0902_SW008_200513	14/05/2020	Normal	0.172	*0.072*	0.013	0.1	<0.00001	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	0.022	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	0.015	<0.01	<0.05	<0.01	<0.02	0.017	<0.02	<0.02	<0.02	<0.01	0.239
SW008	SW008	0902_SW008_201112	12/11/2020	Normal	0.28	*0.2*	0.02	0.08	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.3
SW008	SW008	0902_SW008_210506	6/05/2021	Normal	0.54	*0.19*	0.02	0.35	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	<0.02	-	<0.02	-	0.06	<0.02	<0.05	<0.02	<0.02	0.75
SW009	SW009	0902_SW009_030717	3/07/2017	Normal	**21.3**	*16.3*	0.54	4.98	-	<0.05	<0.05	0.28	0.06	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.76	<0.1	<0.02	<0.02	<0.02	0.42	0.23	0.97	0.03	-	<0.02	-	0.76	0.22	<0.05	<0.02	<0.02	25.6
SW009	SW009	0902_SW009_191104	4/11/2019	Normal	1.41	*1.06*	0.05	0.35	-	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	0.03	0.02	0.13	<0.02	-	<0.02	-	0.05	0.06	<0.05	<0.02	<0.02	1.91
SW009	SW009	0902_QC109_200514	14/05/2020	Field_D	1.24	*0.81*	0.04	0.43	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	0.04	<0.02	<0.02	0.03	0.02	0.11	<0.02	-	<0.02	-	0.04	0.04	<0.05	<0.02	<0.02	1.62
SW009	SW009	0902_SW009_200514	14/05/2020	Normal	0.78	*0.53*	0.02	0.25	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	0.02	<0.02	<0.02	<0.02	<0.02	0.07	<0.02	-	<0.02	-	0.02	0.03	<0.05	<0.02	<0.02	0.98
SW009	SW009	0902_SW009_201112	12/11/2020	Normal	**5.04**	*3.57*	0.14	1.47	-	<0.05	<0.05	0.13	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19	<0.1	<0.02	<0.02	<0.02	0.1	0.07	0.41	<0.02	-	<0.02	-	0.19	0.13	<0.05	<0.02	<0.02	6.4
SW009	SW009	0902_SW009_210506	6/05/2021	Normal	**5.57**	*3.84*	0.14	1.73	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27	<0.1	<0.02	<0.02	<0.02	0.11	0.07	0.44	<0.02	-	<0.02	-	0.24	0.11	<0.05	<0.02	<0.02	6.95
SW011	SW011	0902_QC205_040717	4/07/2017	Interlab_D	**12.6**	*9*	0.37	3.6	-	<0.01	<0.01	0.73	0.03	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.51	0.2	<0.02	<0.02	<0.05	0.39	0.14	0.95	0.02	-	<0.1	-	0.49	0.23	<0.5	<0.1	<0.02	16.66
SW011	SW011	0902_SW011_040717	4/07/2017	Normal	**22.3**	*16*	0.53	6.28	-	<0.05	<0.05	0.72	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.77	<0.1	<0.02	<0.02	<0.02	0.46	0.24	1.17	0.02	-	0.03	-	0.74	0.27	<0.05	<0.02	<0.02	27.3
SW011	SW011	0902_SW011_191108	8/11/2019	Normal	**4.03**	*3.26*	0.1	0.77	-	<0.05	<0.05	0.18	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	<0.1	<0.02	<0.02	<0.02	0.06	0.04	0.27	<0.02	-	<0.02	-	0.09	0.13	<0.05	<0.02	<0.02	4.98
SW011	SW011	0902_SW011_200515	15/05/2020	Normal	**5.91**	*4.56*	0.13	1.35	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	<0.1	<0.02	<0.02	<0.02	0.11	0.06	0.32	<0.02	-	<0.02	-	0.16	0.12	<0.05	<0.02	<0.02	6.93
SW011	SW011	0902_SW011_201112	12/11/2020	Normal	**5.32**	*4.02*	0.12	1.3	-	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	<0.1	<0.02	<0.02	<0.02	0.1	0.06	0.37	<0.02	-	<0.02	-	0.16	0.11	<0.05	<0.02	<0.02	6.52
SW011	SW011	0902_QC204_210507	7/05/2021	Interlab_D	1.63	*1.3*	0.024	0.33	<0.00001	<0.01	<0.01	0.022	<0.01	<0.05	<0.02	<0.01	<0.05	0.054	<0.05	<0.01	<0.01	<0.01	0.019	0.015	0.08	<0.01	<0.05	<0.01	<0.02	0.041	0.027	<0.02	<0.02	<0.01	1.912
SW011	SW011	0902_SW011_210507	7/05/2021	Normal	1.77	*1.38*	0.04	0.39	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	<0.1	<0.02	<0.02	<0.02	0.04	<0.02	0.13	<0.02	-	<0.02	-	0.06	0.04	<0.05	<0.02	<0.02	2.15
SW013	SW013	0902_SW013_030717	3/07/2017	Normal	**2.99**	*0.76*	0.1	2.23	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.32	<0.02	-	<0.02	-	0.34	0.1	<0.05	<0.02	<0.02	4.55
SW013	SW013	0902_SW013_191108	8/11/2019	Normal	0.04	*0.04*	<0.01	<0.02	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.04
SW013	SW013	0902_SW013_200514	14/05/2020	Normal	0.4	*0.18*	0.01	0.22	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	-	<0.02	-	0.02	0.02	<0.05	<0.02	<0.02	0.52
SW013	SW013	0902_SW013_201112	12/11/2020	Normal	0.42	*0.2*	0.01	0.22	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	-	<0.02	-	0.02	<0.02	<0.05	<0.02	<0.02	0.52
SW013	SW013	0902_SW013_210506	6/05/2021	Normal	0.3	*0.16*	<0.01	0.14	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	-	<0.02	-	<0.02	0.02	<0.05	<0.02	<0.02	0.45
SW014	SW014	0902_SW014_030717	3/07/2017	Normal	0.77	*0.44*	0.03	0.33	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.07	<0.02	-	<0.02	-	0.04	<0.02	<0.05	<0.02	<0.02	0.96
SW014	SW014	0902_QC104_191108	8/11/2019	Field_D	0.37	*0.22*	0.02	0.15	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	<0.02	-	<0.02	-	<0.02	0.02	<0.05	<0.02	<0.02	0.46
SW014	SW014	0902_SW014_191108	8/11/2019	Normal	1.37	*0.07*	0.02	1.3	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35	<0.1	<0.02	<0.02	<0.02	0.02	0.02	0.37	<0.02	-	<0.02	-	0.35	0.06	<0.05	<0.02	<0.02	2.56
SW014	SW014	0902_SW014_200514	14/05/2020	Normal	0.25	*0.17*	0.01	0.08	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.26
SW014	SW014	0902_SW014_201112	12/11/2020	Normal	0.15	*0.11*	<0.01	0.04	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.15
SW014	SW014	0902_QC102_210506	6/05/2021	Normal	**4.07**	*0.6*	0.15	3.47	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.63	0.2	<0.02	<0.02	<0.02	0.1	0.11	1.7	<0.02	-	<0.02	-	0.53	0.39	<0.05	<0.02	<0.02	9.46
SW014	SW014	0902_SW014_210506	6/05/2021	Normal	**5.6**	*0.8*	0.2	4.8	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.64	0.2	<0.02	<0.02	<0.02	0.09	0.13	1.68	<0.02	-	<0.02	-	0.53	0.31	<0.05	<0.02	<0.02	7.8
SW015	SW015	0902_SW015_030717	3/07/2017	Normal	0.88	*0.39*	0.02	0.49	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	-	<0.02	-	0.06	<0.02	<0.05	<0.02	<0.02	1.06
SW015	SW015	0902_SW015_200514	14/05/2020	Normal	0.42	*0.26*	<0.01	0.16	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.

Table T6 Historical Surface Water Analytical Results

AECOM

| | | | | | | | PFAS Full Suite | | | | | | |

Table T7 Historical Sediment Analytical Results

AECOM

					PFAS Full Suite																																	
					Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctadecanoic Acid (PFODA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropalmitic acid (PFHxDA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0002	0.0002	0.0002	0.0002	0.0005	0.0005	0.0005	0.0005	0.0002	0.0002	0.0005	0.0005	0.0002	0.0005	0.0002	0.001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.005	0.0002	0.002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Location	**Historical Name**	**Field ID**	**Sampled Date**	**Sample Type**																																		
SD001	SD001	0902_QC108_030717	3/07/2017	Field_D	39.6	38.9	0.634	0.671	0.497	<0.01	11	57.7	<0.025	<0.01	<0.025	<0.025	<0.01	<0.025	<0.01	<0.01	0.318	22.9	4.46	0.183	0.105	0.508	3.25	-	0.527	-	0.0135	0.0135	0.249	0.631	8.38	151
SD001	SD001	0902_SD001_030717	3/07/2017	Normal	2.07	2.05	0.0348	0.0175	0.039	<0.0005	0.508	4.73	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003	0.002	0.0329	1.12	0.15	0.0052	0.0071	0.0139	0.228	-	0.0104	-	0.0005	0.0032	0.0031	0.0121	1.03	10
SD001	SD001	0902_QC101_191104	4/11/2019	Field_D	7.85	7.84	0.0435	0.0124	0.284	<0.005	0.0995	13.5	<0.0125	<0.005	<0.0125	<0.0125	<0.005	<0.0125	<0.005	<0.005	0.106	8.87	2.59	0.0171	0.0109	0.0171	0.464	-	0.142	-	<0.005	<0.005	0.0373	0.177	8.01	42.2
SD001	SD001	0902_SD001_191104	4/11/2019	Normal	14.6	14.6	0.0565	0.016	0.351	<0.005	0.124	19.9	<0.0125	<0.005	<0.0125	<0.0125	<0.005	<0.0125	<0.005	0.0051	<0.005	0.153	13.9	3.42	0.0244	0.0152	0.0219	0.729	-	0.185	-	<0.005	0.0067	0.0506	0.25	12.6	66.4
SD001	SD001	0902_SD001_200515	15/05/2020	Normal	6.58	6.56	0.0938	0.0255	0.101	<0.0005	0.119	6.83	<0.0012	<0.0005	0.0067	<0.0012	<0.0005	<0.0012	0.0015	0.002	0.25	5.32	3.93	0.0175	0.0297	0.0289	0.607	-	0.155	-	0.0017	0.0097	0.424	0.592	5.83	30.9
SD001	SD001	0902_QC107_201113	13/11/2020	Field_D	2.71	2.7	0.031	0.0081	0.0354	<0.0005	0.0358	2.97	<0.0005	<0.0002	<0.0005	<0.0005	0.0003	<0.0005	0.0005	0.002	0.0393	1.46	0.876	0.0074	0.0085	0.0071	0.363	-	0.0408	-	0.0005	0.0031	0.0659	0.14	1.34	10.1
SD001	SD001	0902_SD001_201113	13/11/2020	Normal	5.85	5.84	0.0622	0.0149	0.0541	<0.0005	0.0683	6.32	<0.0005	<0.0002	<0.0005	<0.0005	0.0009	<0.0005	0.0008	0.003	0.0903	3.14	1.9	0.0153	0.0136	0.0133	0.732	-	0.0694	-	0.0008	0.0056	0.167	0.292	2.72	21.5
SD001	SD001	0902_SD001_210507	7/05/2021	Normal	1.99	1.98	0.0124	0.0135	0.0914	<0.0005	0.0158	1.81	<0.0012	<0.0005	0.0127	<0.0012	<0.0005	<0.0012	0.0012	<0.002	0.0576	1.1	0.77	0.0086	0.0051	0.0068	0.112	-	0.0251	-	0.0006	0.0035	0.0488	0.159	1.22	7.45
SD001	SD001	0902_QC107_210507	7/05/2021	Field_D	2.83	2.78	0.0493	0.0498	0.323	<0.001	0.0458	5.22	<0.0025	<0.001	0.0899	<0.0025	<0.001	<0.0025	0.0031	<0.005	0.318	3.81	3.95	0.0422	0.0146	0.0146	0.494	-	0.121	-	0.0031	0.0067	0.117	0.417	5.53	23.4
SD002	SD002	0902_SD002_040717	4/07/2017	Normal	1.92	1.68	0.0298	0.237	0.0023	<0.0005	0.0742	0.0424	<0.0005	0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0023	0.002	0.0177	0.0026	0.0114	0.0157	0.0076	0.0097	0.0133	-	0.0378	-	0.0032	0.0059	0.0032	0.0017	0.006	2.21
SD002	SD002	0902_SD002_191104	4/11/2019	Normal	0.443	0.404	0.0069	0.0394	0.0108	<0.0005	0.0031	0.0051	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0028	0.003	0.0179	0.015	0.0143	0.0036	0.0028	0.0062	0.0072	-	0.0252	-	0.0029	0.0088	0.0049	0.0054	0.0134	0.604
SD002	SD002	0902_SD002_200514	14/05/2020	Normal	0.356	0.311	0.0059	0.0446	0.002	<0.001	<0.001	0.0048	<0.0025	<0.001	<0.0025	<0.0025	<0.001	<0.0025	0.0047	0.004	0.0034	0.0117	0.0126	0.0047	0.0026	0.0106	0.0054	-	0.0173	-	0.0045	0.0054	<0.0025	0.0024	0.0115	0.469
SD002	SD002	0902_QC207_201113	13/11/2020	Interlab_D	0.545	0.51	0.0045	0.035	<0.002	<0.001	0.0016	0.0042	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	0.0027	<0.002	0.0048	0.022	0.017	0.0037	0.0021	0.0058	0.0045	<0.005	0.015	<0.002	0.0026	0.0041	0.004	0.0043	0.016	0.6623
SD002	SD002	0902_SD002_201113	13/11/2020	Normal	0.374	0.345	0.0046	0.0286	<0.0005	<0.0005	0.0018	0.003	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0031	<0.001	0.0031	0.0189	0.0075	0.0036	<0.0002	0.008	0.0042	-	0.0131	-	0.0024	0.0022	<0.0005	0.002	0.0105	0.462
SD002	SD002	0902_SD002_210505	5/05/2021	Normal	0.659	0.599	0.0107	0.0599	0.0043	<0.001	0.0021	0.0048	<0.0025	<0.001	<0.0025	<0.0025	<0.001	<0.0025	0.0036	<0.005	0.0122	0.0198	0.0344	0.0083	0.0033	0.0074	0.0107	-	0.0186	-	0.0051	0.0059	0.0056	0.0092	0.0282	0.853
SD003	SD003	0902_SD003_040717	4/07/2017	Normal	1.03	0.936	0.0082	0.0947	0.0005	<0.0005	0.0084	0.0125	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0022	0.001	0.0212	0.0148	0.0039	0.0054	0.0031	0.0077	0.0073	-	0.0174	-	0.0027	0.0029	0.0006	0.0011	0.011	1.16
SD003	SD003	0902_SD003_191111	11/11/2019	Normal	2.81	2.66	0.0114	0.149	0.0063	<0.0005	0.0066	0.037	<0.0005	0.0007	<0.0005	<0.0005	<0.0002	<0.0005	0.0132	0.003	0.0359	0.0411	0.0209	0.0158	0.0032	0.0245	0.0217	-	0.0337	-	0.0136	0.0047	0.0039	0.0043	0.0136	3.12
SD003	SD003	0902_SD003_200514	14/05/2020	Normal	1.53	1.46	0.0113	0.0683	0.015	<0.0025	0.0194	0.0639	<0.0062	<0.0025	<0.0062	<0.0062	<0.0025	<0.0062	0.0061	0.009	0.055	0.0441	0.0784	0.0117	0.0036	0.0133	0.0113	-	0.0647	-	0.0057	0.0032	0.0113	0.0194	0.0514	2.03
SD003	SD003	0902_SD003_201113	13/11/2020	Normal	0.532	0.497	0.0047	0.035	<0.0005	<0.0005	0.0008	0.0019	<0.0005	0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0022	0.001	0.0138	0.0121	0.0084	0.0044	0.0018	0.0055	0.0038	-	0.0177	-	0.0025	0.002	0.0005	0.0021	0.0115	0.629
SD003	SD003	0902_SD003_210505	5/05/2021	Normal	0.707	0.63	0.0105	0.0771	<0.0005	<0.0005	0.001	0.001	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0041	0.003	0.0288	0.0198	0.023	0.0092	0.0039	0.0109	0.0096	-	0.0128	-	0.0066	0.0077	0.0025	0.0049	0.0211	0.888
SD005	SD005	0902_SD005_040717	4/07/2017	Normal	0.0072	0.0068	<0.0002	0.0004	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0072
SD005	SD005	0902_SD005_191108	8/11/2019	Normal	0.0044	0.0044	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0044
SD005	SD005	0902_QC105_200514	14/05/2020	Field_D	0.0155	0.0148	<0.0002	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0155
SD005	SD005	0902_SD005_200514	14/05/2020	Normal	0.0119	0.0112	<0.0002	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0119
SD005	SD005	0902_QC105_201112	12/11/2020	Field_D	0.0101	0.0093	<0.0002	0.0008	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0101
SD005	SD005	0902_SD005_201112	12/11/2020	Normal	0.0088	0.0083	<0.0002	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0088
SD005	SD005	0902_SD005_210506	6/05/2021	Normal	0.0128	0.0116	<0.0002	0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.013
SD007	SD007	0902_SD007_040717	4/07/2017	Normal	0.0161	0.0146	0.0003	0.0015	<0.0005	<0.0005	0.0017	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0187
SD007	SD007	0902_SD007_191108	8/11/2019	Normal	0.0051	0.0044	<0.0002	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0051
SD007	SD007	0902_QC207_200514	14/05/2020	Interlab_D	0.0057	0.0057	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.001	<0.002	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002	<0.002	0.0057
SD007	SD007	0902_SD007_200514	14/05/2020	Normal	0.0035	0.0033	<0.0002	0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0035
SD007	SD007	0902_QC205_201112	12/11/2020	Interlab_D	0.0041	0.0041	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.001	<0.002	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002	<0.002	0.0041
SD007	SD007	0902_SD007_201112	12/11/2020	Normal	0.004	0.0035	<0.0002	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	0.0002	<0.0005	<0.0002	<0.0002	0.0042
SD007	SD007	0902_SD007_210506	6/05/2021	Normal	0.0014	0.0012	<0.0002	0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0019
SD008	SD008	0902_SD008_040717	3/07/2017	Normal	0.0404	0.0385	<0.0002	0.0019	<0.0005	<0.0005	0.0008	0.0008	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0008	0.0003	<0.0002	0.0003	<0.0002	<0.0002	0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	0.0002	0.043
SD008	SD008	0902_SD008_191108	8/11/2019	Normal	0.0074	0.0068	<0.0002	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0012	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0086
SD008	SD008	0902_QC108_200514	14/05/2020	Field_D	0.0193	0.0161	<0.0002	0.0032	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	0.0003	<0.0002	<0.0005	<0.0002	0.0002	0.0201
SD008	SD008	0902_SD008_200514	14/05/2020	Normal	0.0127	0.0109	<0.0002	0.0018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	0.0004	<0.0002	<0.0005	<0.0002	<0.0002	0.0133
SD008	SD008	0902_SD008_201112	12/11/2020	Normal	0.0191	0.0172	0.0002	0.0019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0006	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	0.0005	<0.0005	<0.0002	<0.0002	0.0204
SD008	SD008	0902_SD008_210506	6/05/2021	Normal	0.0063	0.0043	<0.0002	0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0004	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0069
SD009	SD009	0902_SD009_030717	3/07/2017	Normal	0.19	0.183	0.0016	0.0067	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0029	0.0007	0.0006	0.001	0.0004	0.0006	0.0008	-	0.001	-	<0.0002	0.0005	<0.0005	0.0002	0.0007	0.201
SD009	SD009	0902_SD009_191104	4/11/2019	Normal	0.0187	0.0178	<0.0002	0.0009	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0008	<0.0002	0.0003	<0.0002	<0.0002	0.0003	<0.0002	-	0.002	-	<0.0002	<0.0002	<0.0005	<0.0002	0.0002	0.0223
SD009	SD009	0902_SD009_200514	14/05/2020	Normal	0.17	0.147	0.0024	0.0227	0.0009	<0.0005	0.0018	0.0016	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0016	0.002	0.0041	0.0006	0.0106	0.0017	0.002	0.0032	0.0008	-	0.004	-	0.0041	0.0044	0.0043	0.0054	0.0017	0.227
SD009	SD009	0902_SD009_201112	12/11/2020	Normal	0.0908	0.0822	0.0007	0.0086	0.0006	<0.0005	0.001	0.0012	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0007	0.001	0.0016	0.0003	0.0053	0.0006	0.0004	0.0019	<0.0002	-	0.0018	-	0.0007	0.0011	0.0028	0.003	0.0008	0.116
SD009	SD009	0902_SD009_210506	6/05/2021	Normal	0.0749	0.0712	0.0005	0.0037	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0066	0.0009	0.001	0.0007	0.0003	0.0004	0.0005	-	0.0004	-	<0.0002	0.0004	<0.0005	<0.0002	0.0012	0.0878
SD011	SD011	0902_QC206_040717	4/07/2017	Interlab_D	0.397	0.38	0.0026	0.017	0.0024	<0.0001	0.0005	0.0078	<0.001	<0.0002	<0.005	<0.001	<0.0002	<0.001	0.0009	0.001	0.0024	0.002	0.011	0.0022	<0.0001	0.0024	0.0011	-	0.004	-	0.0013	<0.0002	0.009	0.0084	0.004	0.46
SD011	SD011	0902_SD011_040717	4/07/2017	Normal	0.77	0.722	0.0066	0.0479	0.0065	<0.0005	0.004	0.0463	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003	<0.001	0.006	0.0041	0.0152	0.0068	0.0014	0.0057	0.0042	-	0.0106	-	0.0025	<0.0002	0.0063	0.0078	0.0085	0.911
SD011	SD011	0902_SD011_191108	8/11/2019	Normal	0.0027	0.0027	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0027
SD011	SD011	0902_SD011_200515	15/05/2020	Normal	0.0244	0.0217	<0.0005	0.0027	<0.0005	<0.0005	<0.0005	<0.0005	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	<0.0012	<0.0005	<0.001	<0.0005	<0.0005	0.0018	<0.0005	<0.0005	<0.0005	<0.0005	-	<0.0005	-	<0.0005	<0.0005	<0.0012	<0.0005	0.0009	0.0271
SD011	SD011	0902_SD011_201112	12/11/2020	Normal	0.0709	0.0664	0.0005	0.0045	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0006	0.0006	0.0028	0.0004	0.0003	0.0011	0.0003	-	0.0008	-	0.0002	0.0006	0.0006	0.0007	0.0011	0.0815
SD011	SD011	0902_SD011_210507	7/05/2021	Normal	0.0332	0.0311	<0.0002	0.0021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0012	0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	0.0003	0.0352
SD013	SD013	0902_SD013_030717	3/07/2017	Normal	0.048	0.0416	0.0006	0.0064	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0005	<0.0002	<0.0002	0.0003	0.0003	0.0005	0.0002	-	<0.0002	-	0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0506
SD013	SD013	0902_SD013_191108	8/11/2019	Normal	0.0153	0.0135	<0.0002	0.0018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	0.0004	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	-	0.0005	-	<0.0002	<0.0002	<0.0005	<0.0002	0.0008	0.0184
SD013	SD013	0902_SD013_200514	14/05/2020	Interlab_D	0.0575	0.0514	<0.001	0.0035	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	<0.001	0.029	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002	<0.002	0.0865
SD013	SD013	0902_SD013_200514	14/05/2020	Normal	0.0411	0.0382	0.0002	0.0029	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0002	<0.001	0.0004	<0.0002	<0.0002	0.0002	<0.0002	0.0003	<0.0002	-	<0.0002	-	0.0004	<0.0002	<0.0005	<0.0002	<0.0002	0.0428
SD013	SD013	0902_SD013_201112	12/11/2020	Normal	0.0173	0.0148	<0.0002	0.0025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0173
SD013	SD013	0902_SD013_210506	6/05/2021	Normal	0.0298	0.0276	0.0006	0.0022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0003	<0.0002	<0.0002	0.0002	0.0004	0.0006	<0.0002	-	<0.0002	-	<0.0002	0.0003	<0.0005	<0.0002	<0.0002	0.0322
SD014	SD014	0902_SD014_030717	3/07/2017	Normal	0.173	0.158	0.0008	0.0151	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0004	<0.001	0.0008	0.0005	0.0005	0.0019	<0.0002	0.0006	<0.0002	-	0.002	-	0.0007	<0.0002	<0.0005	<0.0002	0.0011	0.182
SD014	SD014	0902_QC103_191108	8/11/2019	Field_D	0.0009	0.0006	<0.0002	0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	-	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002

Table T7 Historical Sediment Analytical Results

| | | |

Appendix C

Calibration Certificates

Appendix C Calibration Certificates

Calibration & Service Report
Water Quality Meter

Company:	Active Environmental Solutions Hire	**Manufacturer:**	Heron	**Serial #:**	01- 7624
Address:	Unit 16, 191 Parramatta Road AUBURN NSW 2144	**Instrument/Model:**	H.OIL Interface Probe 30 m	**Tape Length:**	30m
Phone:	02 9716 5966 | **Fax**: 02 9716 5988	**Client Company:**		**Client Email:**	
Email:	hire@aesoultions.com.au	**Client Name:**		**Client Phone:**	

Equipment Check

30 m Heron Interface Probe

Customer:		**Manufacturer:**	Heron	
Contact:		**Instrument:**	H.OIL Interface Probe	
Order:		**Serial #:**	01-7624	
		Cable length:	30 m	
Item	**Test**	**Pass**	**Comments**	
Battery	Voltage (9v battery)	✓	Voltage above 7.9v	
	Fuses, circuit board	✓		
Probe	Decontaminated	✓		
	Condition	✓	Good, clean	
	Operation	✓	Responding	
Connectors	Condition	✓		
Tape Check	Decontaminated	✓		
	Checked for cuts	✓	Good condition	
Speaker	Operation	✓		
Light	Operation	✓		
Instrument Test	Water	✓	Surface level using tap water	
	Oil	✓	Surface level using Petrol and tap water	
This is to certify that the above instrument has been checked and is in good working order.				

Checked By: Milenko Sisic

Check Date: 23/04/2021 **Due for Check:** 23/10/2021

Calibration & Service Report
Water Quality Meter

Company:	Active Environmental Solutions Hire	**Manufacturer:**	YSI	**Serial #:**	20K104049
Address:	Unit 16, 191 Parramatta Road AUBURN NSW 2144	**Instrument/Model:**	WQM Professional Plus w/ Quatro Cable	**Cable Length:**	20 m
Phone:	02 9716 5966 | **Fax**: 02 9716 5988	**Client Company:**		**Client Email:**	
Email:	hire@aesoultions.com.au	**Client Name:**		**Client Phone:**	

Item	Test	Pass	Comments
Battery	2 x Alkaline C-cells	✓	Voltage reading above 2.9V
	Battery Saver	✓	Automatically turns off after 60 minutes if not used
Connections	Condition	✓	Good, clean
Cable	Condition	✓	Clean, no tears
Display	Operation	✓	
Firmware	Version	✓	4.0.0
Keypad	Operational	✓	
Display	Screen	✓	
Unit	Condition, seals and O-rings	✓	
Monitor housing	Condition	✓	
pH			
Condition		✓	Good, clean
pH millivolts for pH7 calibration range 0 mV ± 50 mV		✓	
pH 4 mV range + 165 to + 180 from 7 buffer mV value		✓	
pH slope		✓	55 to 60 mV/pH; ideal 59mV
Response time < 90 seconds		✓	
Calibrated and conforms to manufacturer's specifications		✓	
ORP			
Condition		✓	Good, clean
Response time < 90 seconds		✓	
within ± 80mv of reference Zobell Reading		✓	
Calibrated and conforms to manufacturer's specifications		✓	Variance range ± 20mV
Conductivity			
Condition		✓	Good, clean
Temperature		✓	°C
Conductivity cell constant 5.0 ± 1.0 in GLP file		✓	
Clean sensor reads less than 3 uS/cm in dry air		✓	
Calibrated and conforms to manufacturer's specifications		✓	µs/cm
Dissolved Oxygen			
Condition		✓	Good, clean
DO sensor in use		✓	Polarographic
1.25 mil PE membrane (yellow membrane):		✓	
DO Sensor Value		✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA
Calibrated and conforms to manufacturer's specifications		✓	ppm

				Instrument Readings		
Parameter	**Standards**	**Reference**	**Calibration Point**	**Before**	**After**	**Units**
Temperature	Center 370 Thermometer	Room Temp.	19.0	N/A	18.9	°C
pH	pH 4.00	336722	4.01	3.87	4.01	pH
pH	pH 7.00	329744	7.00	6.85	7.00	pH
Conductivity	2760 µs/cm at 25°C	332208	2760	2766	2760	µs/cm
ORP (Ref. check only)	Zobell A & B	340526 & 340529	241.3	241.2	241.3	mV
Zero Dissolved Oxygen	NaSO3 in distilled water	5928	0.0	-0.2	0.0	%
100% Dissolved Oxygen	100% Air Saturation	Fresh Air	100.0	117.8	100.0	%

Calibrated By: Milenko Sisic

Calibration Date: 30/04/2020 **Calibration Due:** 30/10/2021

Calibration & Service Report
Gas Monitor

Company:	Active Environmental Solutions Hire	**Manufacturer:**	RAE Systems	**Serial #:**	592-902529
Contact:	Aleks Todorovic	**Instrument:**	MiniRAE 3000	**Asset #:**	-
Address:	2 Merchant Avenue Thomastown Vic 3074	**Model:**	PGM 7320	**Part #:**	-
		Configuration:	VOC	**Sold:**	-
Phone:	03 9464 2300 | **Fax**: 03 9464 3421	**Wireless:**	-	**Last Cal:**	-
Email:	Hire@aesolutions.com.au	**Network ID:**	-	**Job #:**	-
		Unit ID:	-	**Cal Spec:**	Std

Item	Test	Pass/Fail	Comments
Battery	Li Ion	✓	
Charger	Charger, Power supply	✓	
	Cradle	✓	
Pump	Flow	✓	>500 mL/min
Filter	Filter, fitting, etc	✓	
Alarms	Audible, visual, vibration	✓	
Display	Operation	✓	
PCB	Operation	✓	
Connectors	Condition	✓	
Firmware	Version	✓	2.16
Datalogger	Operation	✓	
Monitor Housing	Condition	✓	
Case	Condition/Type	✓	
Sensors			
Oxygen		-	
LEL		-	
PID	10.6eV	✓	
Toxic 1		-	
Toxic 2		-	
Toxic 3		-	
Toxic 4		-	
Toxic 5		-	

Engineer's Report

Setup, service and calibration for hire

Calibration Certificate

Sensor	Type	Serial No:	Span Gas	Concentration	Traceability Lot #	CF	Reading	
							Zero	Span
Oxygen								
LEL								
PID	10.6eV	1062R125797	Isobutylene	100 PPM	4835-1-1	1	0	100 PPM
Toxic 1								
Toxic 2								
Toxic 3								
Toxic 4								
Toxic 5								

Calibrated/Repaired by: Milenko Sisic

Date: 30/04/2021

Next due: 30/10/2021

Calibration & Service Report
Gas Monitor

Company: Active Environmental Solutions Hire
Contact: Aleks Todorovic
Address: 2 Merchant Avenue
Thomastown Vic 3074
Phone: 03 9464 2300 | **Fax**: 03 9464 3421
Email: Hire@aesoultions.com.au

Manufacturer:	RAE Systems	**Serial #:**	M01C005770
Instrument:	MicroRAE	**Asset #:**	-
Model:	PGM 6208	**Part #:**	-
Configuration:	O2, LEL, H2S, CO,	**Sold:**	-
Wireless:	-	**Last Cal:**	-
Network ID:	-	**Job #:**	-
Unit ID:	-	**Cal Spec:**	Std

Item	Test	Pass/Fail	Comments
Battery	Li Ion	✓	
Charger	Charger, Power supply	✓	
	Cradle	✓	
Pump	Flow	-	>300 mL/min
Filter	Filter, fitting, etc	✓	
Alarms	Audible, visual, vibration	✓	
Display	Operation	✓	
PCB	Operation	✓	
Connectors	Condition	✓	
Firmware	Version	✓	1.40
Datalogger	Operation	✓	
Monitor Housing	Condition	✓	
Case	Condition/Type	✓	
Sensors			
Oxygen		✓	
LEL		✓	
PID		-	
Toxic 1	CO	✓	
Toxic 2	H2S	✓	
Toxic 3		-	
Toxic 4		-	
Toxic 5		-	

Engineer's Report

Setup, service and calibration for hire.

Calibration Certificate

Sensor	Type	Serial No:	Span Gas	Concentration	Traceability Lot #	CF	Reading	
							Zero	Span
Oxygen	O2	-	Fresh Air	20.9%	WO275862-1	1	20.9%	
			Oxygen	18.0%				18.0%
LEL	LEL	-	Methane	2.5% (50% LEL)	WO275862-1	1	0	50%
PID								
Toxic 1	CO	-	Carbon Monoxide	50PPM	WO275862-1	1	0	50PPM
Toxic 2	H2S	-	Hydrogen Sulfide	10 PPM	WO275862-1	1	0	10PPM
Toxic 3								
Toxic 4								
Toxic 5								

Calibrated/Repaired by: Milenko Sisic

Date: 20/04/2021

Next due: 20/10/2021

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	RAAF Richmond PFAS OMP	**Project Number:**	60612562
Project Location:		**Client:**	Defence
PM Name:	GT	**Fieldwork Staff Name:**	KW + PY

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	AES
Make and Model:	YSI Pro Plus
Serial Number:	20K104049

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	7:07 4/5/21				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4.0	7.0	2180	0	Air
Bump Test Reading:	4.01	7.2	2169	0	102.5
Bump Test Temperature:	13.6	13.8	13.7	13.5	13.5

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature	**Date** 4/5/21

Distribution: Project Central File

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	RAAF Richmond PFAS OMP	**Project Number:**	60612562
Project Location:		**Client:**	Defence
PM Name:	GT	**Fieldwork Staff Name:**	KW + PY

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	AES
Make and Model:	YSI Pro DDS
Serial Number:	20K104049

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	7:10 5/5/21				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4.00	7.04	2180	0	100
Bump Test Reading:	4.02	7.05	2172	0	100.5
Bump Test Temperature:	14.0	14.0	13.9	14.1	14.1

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature	Date
	5/5/21

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	RAAF Richmond PFAS OMP	**Project Number:**	60612562
Project Location:		**Client:**	Defence
PM Name:	GT	**Fieldwork Staff Name:**	KW + PY

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	AES
Make and Model:	YSI Pro Plus
Serial Number:	20K104049

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	6/5/21 7:15				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4.0	7.4	2180	0	A.V
Bump Test Reading:	4.01	7.2	2172	0	102.1
Bump Test Temperature:	13.5	13.5	13.6	13.6	13.6

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

6/5/21

Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	RAAF Richmond PFAS OMP	**Project Number:**	60612562
Project Location:		**Client:**	Defence
PM Name:	GT	**Fieldwork Staff Name:**	KW + PY

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	AES
Make and Model:	YSI Pro Plus
Serial Number:	20k104049

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	7/5/21 7:10				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4.0	7.4	2180	0	Air
Bump Test Reading:	4.0	7.2	2168	0	103.2
Bump Test Temperature:	13.2	13.2	13.2	13.4	13.4

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

KW — 7/5/21

Fieldwork Staff Signature | **Date**

Distribution: Project Central File

Appendix D

Analytical Data Validation

Appendix D Analytical Data Validation

DATA VALIDATION REPORT

Project number:	60612562	Validation by:	[redacted]	Date:	27/05/2021
Client:	Department of Defence				
Site:	RAAF Base Richmond				
Matrix type:	Soil / Groundwater / Surface Water	Data verified by:	[redacted]	Date:	28/05/2021
Primary samples:	19 Sediment samples / 76 Groundwater samples / 22 Surface water samples				
Laboratory:	ALS, NMI				
Lab reference:	ES2116724, ES2116725, ES2117172, ES2117098, ES2117089, AECO03_210511_RN1314562	Project Manager:	[redacted]		

Key Issues:	No issues were identified that have the potential to impact upon the reliability of the Data. AECOM considers that the field procedures and laboratory QA/QC processes employed were appropriate for the purposes of the investigation.

Field Quality Assurance and Quality Control

Field DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2021).
Sampling personnel	Sampling was conducted by Kurtis Wathen and Prerana Yerdhali between 3 and 7 May 2021. Field personnel were both suitably qualified and experienced AECOM Environmental Scientists
Sampling Methodology	The majority of groundwater samples were collected using pre-deployed 1.1L Hydrasleeves, with collected water deposited directly into laboratory prepared bottles. Grab samples were collected from monitoring wells MW045, MW033, MW074, MW120 and MW121 using dedicated, disposable bailers. The sample bottles were filled to the top, following laboratory instructions, caps immediately applied and stored on ice for preservation. Water quality parameters were collected down-well via a submerged water quality meter and were recorded once field values had stabilised. Surface water samples were either collected from directly beneath the surface to limit the infiltration of sediment into samples or using dedicated, disposable bailers where access was limited. Smaller vials were filled from larger sampling containers, to ensure preservative acids did not spill. The bottles were filled to the top, following laboratory instructions, caps immediately applied and stored on ice for preservation. Sediment samples were collected using a trowel and deposited directly into laboratory prepared containers. The containers were filled to the top, following laboratory instructions, and stored on ice for preservation. After each sampling at each location, the water quality meter and interface probe were decontaminated using Liquinox and the consumables (nitrile gloves, hydrasleeves™ and/or bailers) were disposed of.
Chain of Custody (COC)	All samples taken were reported on the Chain of Custody documents (COC) and subsequent email amendments analysed for requested analytes.
Rinsate Blank	Rinsate blank samples were collected at a frequency of one per day of sampling (five in total). All rinsates were collected from the final rinse of the interface probe. The results of the rinsate analysis indicated that concentrations of PFAS were below the limit of reporting (LOR) for all analytes tested. Rinsate results are presented in Table D1 in Appendix D.

Frequency of field QC	Field duplicate and triplicates (inter-laboratory duplicates) were to be collected at a frequency of one in twenty primary samples (5%). In total, five field duplicates were collected for water samples (5.1%), and one field duplicate for sediment (5.26%) were collected, meeting the DQI. Five inter-laboratory duplicates were collected for water samples (5.1%), and one triplicate for sediment (5.26%) were collected, meeting the DQI.
Handling and preservation	Primary and duplicate samples for groundwater, surface water and sediment were placed in a chilled cooler between sampling and analysis. Samples were received preserved and chilled at the laboratory, with all containers received within the recommended temperature range (4 ± 2°C) with the exception of batch ES2117172 which was received at 0.2°C. While the received temperatures were marginally below the recommended range, they are not considered to impact upon the reliability of the results. The inter-laboratory duplicate samples were received at the secondary laboratory (NMI) within the recommended temperature range (4 ± 2°C). All samples were received at the laboratory in appropriate sample containers.
Calibration of equipment	Measurement of groundwater geochemical parameters was undertaken using the YSI WQM Professional Plus, which was calibrated by the supplier prior to use, in accordance with manufacturer's instructions and "bump tested" in the field at the beginning of each sampling day Measurement of depth to groundwater was undertaken by an interface probe, which was serviced by the supplier AES prior to use. All calibration and service certificates are presented in Appendix C.
Laboratory QA/QC	
Laboratory DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2021).
Tests requested/reported	All primary water samples were analysed for the Per- and Polyfluoroalkyl Substances (PFAS) extended suite, with approximately 20% of all samples analysed for nutrients (ammonia, nitrate, nitrite, phosphorous) and metals (aluminium, bromine, iron, manganese). All primary sediment samples were analysed only for the PFAS extended suite. All sample request of analysis was reported on the Chain of Custody (COC). Confirmation of results were requested and adopted for the below samples; • 0902_MW042_210503 • 0902_MW120_210504 • 0902_MW121_210504 • 0902_SW018_210506 • 0902_SW023_210506 • 0902_SW014_210506 • 0902_QC102_210506 • 0902_QC104_210506 • 0902_SD016_210505 • 0902_SD020_210507 • 0902_SD019_210507
Holding time compliance	All samples were extracted and analysed within recommended holding times.
Laboratory	The primary laboratory was ALS Environmental Pty Ltd (Sydney) a National Association of Testing Authorities (NATA) accredited laboratory (Accreditation No. 825). The secondary laboratory used for the project was National Measurement Institute (NMI,

	Sydney), also a NATA accredited laboratory (accreditation number 198). All analysis was completed using NATA accredited methods.
Frequency of laboratory QC	The primary laboratory (ALS), reported a sufficient frequency of quality control samples with the exception of Duplicates and Matrix Spikes for the following workorders ; Laboratory Duplicates ES2116725 • PFAS: Actual 0.00 Expected 10.00 ES2117098 • PFAS: Actual 7.55 Expected 10.00 Matrix Spike ES2116725 • PFAS: Actual 0.00 Expected 5.00 The accuracy of the data can be assessed as acceptable based on method blank, laboratory duplicates, LCS recoveries, which were reported at or above the required frequencies and within control limits.
Method Blank	All method blank concentrations were reported <LOR for the analytes tested from the primary laboratory, ALS. This is presented in the laboratory Quality Control Report.
Laboratory duplicate RPDs	The reported laboratory duplicate Relative Percentage Differences (RPD) were within laboratories control limits. The laboratory duplicate RPDs are presented in the laboratory Quality Control Report.
Laboratory control spike recovery	The reported laboratory Control Spikes (LCS) recoveries were within the laboratories control limits. This is presented in the laboratory Quality Control Report.
Matrix spike recovery	The reported laboratory Matrix Spike (MS) recoveries were within the laboratory control limits for PFAS analytes with the exception of a number of PFAS compounds in batches ES2116725, ES2117172, ES2117098, and nutrients analytes in batches ES2116725, ES2117172 where the MS recovery was not determined due to background levels being greater than or equal to 4x spike level. Given the low limits of reporting for these PFAS compounds, AECOM is of the opinion that this would not significantly impact upon the reliability of the data. Matrix Spike recovery was less than the lower data quality objective for the following in report ES2117098 • 8:2 Fluorotelomer sulfonic acid (8:2 FTS) – 62% (65.0-137%) • 10:2 Fluorotelomer sulfonic acid (10:2 FTS) – 61.6% (69.2-143%) The ALS technician has accepted this quality control run, as all other compounds passed. Additionally, it was noted that most of the compounds were on the lower side of recovery percent, and that this test was not performed on an AECOM sample, rather an anonymous sample on the same instrument.
Surrogate spike recovery	The reported surrogate spike recoveries were within laboratory control limits (60% - 120%), with the exception of PFAS in ES2117172 which was reported less than the lower data quality objective at 50%. When high concentrations of particular PFAS compounds occur, surrogates can be suppressed and difficult to differentiate when observing peaks. In this case the Perfluorodecanoic acid (PFDA), Perfluoroundecanoic acid (PFUnDA), and Perfluorododecanoic acid (PFDoDA) compounds were high and dilution was required,

	possibly suppressing the surrogate peaks/observable recovery. This is often the case with impacted samples. AECOM is of the opinion that this would not significantly impact upon the reliability of the data.
QA/QC Data Evaluation	
Comparison of Field Observations and Laboratory Results	No anomalous results between field observations and analysis results were noted.
Data transcription	A check of the laboratory results identified no anomalies within the electronic data, the laboratory reports, and tables generated by AECOM.
Limits of reporting	Limits of Reporting (LORs) were sufficiently low to enable assessment against adopted human health screening levels and were consistent with Defence (2018) Standard PFAS Analytical Suite requirements. It is noted that the LORs for PFAS compounds were greater than the adopted 99% freshwater ecosystem protection values adopted as ecological screening criteria.
Field duplicate and Triplicate RPDs	Water Field duplicate RPDs were reported within the DQIs, with the exception of a number of PFAS analytes for water sample duplicate pairs exceeded the DQI with RPDs ranging between 32% and 115% (refer to **Table D2**): Sediment Field duplicate RPDs were reported within the DQIs, with the exception of a number of PFAS analytes for sediment sample duplicate pairs exceeded the DQI with RPDs ranging between 34% and 150% (refer to **Table D3**) The RPD exceedances were largely attributed to the low concentrations of PFAS compounds reported in the primary and duplicate samples which were noted generally to be within the same order of magnitude for each duplicate pair. Given that the primary and duplicate samples were all within the same concentrations range for the applicable guideline criteria (where available), AECOM does not consider that these RPD exceedances impact upon the reliability of the data. Water and Sediment Duplicate RPD results are presented in Tables D2 and D3 (respectively) in Appendix D.
Overall Assessment	
	Data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

D1 - Rinsate Results

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		PFAS Full Suite																																
	Sum of PFAS (WA DER List)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS	Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR	0.01	0.05	0.05	0.05	0.05	0.05	0.02	0.05	0.05	0.02	0.05	0.02	0.1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.01	0.01	0.01	0.01	0.02
Field ID	**Sampled Date**	**Sample Type**																																
0902_QC300_210503	3/05/2021	Rinsate	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02
0902_QC301_210504	4/05/2021	Rinsate	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02
0902_QC302_210505	5/05/2021	Rinsate	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02
0902_QC303_210506	6/05/2021	Rinsate	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02
0902_QC304_210507	7/05/2021	Rinsate	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02

AECOM

Table D2 - Water Duplicate Results

		PFAS Full Suite																																
		10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctadecanoic Acid (PFODA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropalmitic acid (PFHxDA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS	Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR		0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.05	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Field ID	Date																																	
0902_MW007_210503	3/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.09	0.09	<0.01	<0.01	0.09
0902_QC100_210503	3/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.12	0.10	<0.01	<0.01	0.10
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	29	11	0	0	11
0902_MW051_210503	3/05/2021	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	36.7	10.7	0.13	<0.02	<0.02	22.6	4.20	85.3	0.09	-	0.07	-	46.5	10.4	<0.05	<0.02	<0.02	595	367	80.0	11.2	287
0902_QC200_210503	3/05/2021	<0.01	<0.01	0.084	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	46	10	<0.01	<0.01	<0.01	11	6.6	68	0.061	<0.05	0.019	<0.02	39	16	<0.02	<0.02	<0.01	-	-	83	14	250
RPD		0	0	5	0	0	0	0	0	0	0	22	7	nc	0	0	69	44	23	38	-	115	-	18	42	0	0	0	-	-	4	22	14
0902_MW082_210504	4/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02
0902_QC101_210504	4/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	0	0	0	0	0
0902_MW060_210504	4/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19	<0.1	<0.02	<0.02	<0.02	0.08	0.05	0.34	<0.02	-	<0.02	-	0.25	0.07	<0.05	<0.02	<0.02	3.66	2.58	0.54	0.10	2.04
0902_QC201_210504	4/05/2021	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	0.18	<0.05	<0.01	<0.01	<0.01	0.045	0.039	0.27	<0.01	<0.05	<0.01	<0.02	0.21	0.059	<0.02	<0.02	<0.01	-	-	0.4	0.075	1.9
RPD		0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	56	25	23	0	-	0	-	17	17	0	0	0	-	-	30	29	7
0902_SW014_210506	6/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.64	0.2	<0.02	<0.02	<0.02	0.09	0.13	1.68	<0.02	-	<0.02	-	0.53	0.31	<0.05	<0.02	<0.02	7.78	4.07	0.6	0.15	3.47
0902_QC102_210506	6/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.63	0.2	<0.02	<0.02	<0.02	0.1	0.11	1.7	<0.02	-	<0.02	-	0.53	0.39	<0.05	<0.02	<0.02	7.93	5.6	0.8	0.2	4.8
RPD		0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	11	17	1	0	0	0	0	0	23	0	0	0	2	32	29	29	32
0902_MW013_210506	6/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.55	<0.1	<0.02	<0.02	<0.02	0.05	0.02	0.23	<0.02	-	<0.02	-	0.65	0.05	<0.05	<0.02	<0.02	7.33	5.75	0.11	0.03	5.64
0902_QC203_210506	6/05/2021	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	0.52	0.12	<0.01	<0.01	<0.01	0.02	0.014	0.13	<0.01	<0.05	<0.01	<0.02	0.53	0.037	<0.02	<0.02	<0.01	-	-	0.13	0.015	4.7
RPD		0	0	0	0	0	0	0	0	0	0	6	18	0	0	0	86	35	56	0	-	0	-	20	30	0	0	0	-	-	17	67	18
0902_MW012_210506	6/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.43	<0.1	<0.02	<0.02	<0.02	0.21	0.27	1.97	<0.02	-	<0.02	-	1.63	0.41	<0.05	<0.02	<0.02	17.7	11.4	1.47	0.34	9.97
0902_QC103_210506	6/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.54	0.3	<0.02	<0.02	<0.02	0.22	0.29	1.65	<0.02	-	<0.02	-	1.72	0.38	<0.05	<0.02	<0.02	16.9	10.5	1.63	0.31	8.9
RPD		0	0	0	0	0	0	0	0	0	0	7	nc	0	0	0	5	7	18	0	-	0	-	5	8	0	0	0	5	8	10	9	11
0902_SW018_210506	6/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	0.09	<0.02	-	<0.02	-	0.05	0.02	<0.05	<0.02	<0.02	1.21	1.16	0.62	0.04	0.55
0902_QC104_210506	6/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	0.1	<0.02	-	<0.02	-	0.06	0.03	<0.05	<0.02	<0.02	1.23	1.34	0.72	0.04	0.62
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	18	40	0	0	0	2	14	15	0	12
0902_SW011_210507	7/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	<0.1	<0.02	<0.02	<0.02	0.04	<0.02	0.13	<0.02	-	<0.02	-	0.06	0.04	<0.05	<0.02	<0.02	2.15	1.77	1.38	0.04	0.39
0902_QC204_210507	7/05/2021	<0.01	<0.01	0.022	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	0.054	<0.05	<0.01	<0.01	<0.01	0.019	0.015	0.08	<0.01	<0.05	<0.01	<0.02	0.041	0.027	<0.02	<0.02	<0.01	-	-	1.3	0.024	0.33
RPD		0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	71	0	48	0	-	0	-	38	39	0	0	0	-	-	6	50	17
0902_MW044_210507	7/05/2021	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	<0.02	-	<0.02	<0.02	<0.05	<0.02	<0.02	0.06	0.06	0.02	<0.01	0.04
0902_QC205_210507	7/05/2021	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.01	-	-	0.038	<0.01	0.038
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	-	0	0	0	0	0	-	-	62	0	5

*RPDs have only been considered where a concentration is greater than 1 times the LOR.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each LOR multiplier range are: 30 (1 - 10 x LOR); 30 (10 - 30 x LOR); 30 (> 30 x LOR))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory
nc = non calcluable as one or both results are <LOR

AECOM

Table D3 - Sediment Duplicate Results

		PFAS Full Suite																																	
		10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctadecanoic Acid (PFODA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropalmitic acid (PFHxDA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS	Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR		0.0005	0.0005	0.0005	0.0005	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0002	0.001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.005	0.0002	0.002	0.0002	0.0002	0.0005	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Field ID	Date																																		
0902_SD014_210506	6/05/2021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006	0.0044	<0.001	0.001	0.0011	0.006	0.0027	0.0014	0.0151	<0.0002	-	0.0003	-	0.0054	0.0041	<0.0006	0.001	0.0028	0.163	0.115	0.0625	0.0032	0.0523
0902_QC202_210506	6/05/2021	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.02	<0.01	<0.01	0.013	<0.01	<0.01	0.014	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	0.094	<0.01	0.056
RPD		0	0	0	0	0	0	0	0	0	0	0	0	0	0	74	0	0	8	0	-	0	-	0	0	0	0	0	-	-	40	0	7
0902_SD001_210507	7/05/2021	0.0914	<0.0005	0.0158	1.81	<0.0012	<0.0005	0.0127	<0.0012	<0.0005	<0.0012	0.0012	<0.002	0.0576	1.10	0.770	0.0086	0.0051	0.0068	0.112	-	0.0251	-	0.0006	0.0035	0.0488	0.159	1.22	7.45	1.99	1.98	0.0124	0.0135
0902_QC107_210507	7/05/2021	0.323	<0.0010	0.0458	5.22	<0.0025	<0.0010	0.0899	<0.0025	<0.0010	<0.0025	0.0031	<0.005	0.318	3.81	3.95	0.0422	0.0146	0.0146	0.494	-	0.121	-	0.0031	0.0067	0.117	0.417	5.53	23.4	2.83	2.78	0.0493	0.0498
RPD		112	0	97	97	0	0	150	0	0	0	88	0	139	110	135	132	96	73	126	-	131	-	135	63	82	90	128	103	35	34	120	115

*RPDs have only been considered where a concentration is greater than 1 times the LOR.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each LOR multiplier range are: 30 (1 - 10 x LOR); 30 (10 - 30 x LOR); 30 (> 30 x LOR))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Appendix E

Laboratory Certificates

Appendix E Laboratory Certificates

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2116724**	Page	: 1 of 10
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 05-May-2021 14:00
Order number	: 5.1	Date Analysis Commenced	: 06-May-2021
C-O-C number	: 22332	Issue Date	: 13-May-2021 14:16
Sampler	: MAT JENKINS, PRERANA YERDHALLI		
Site	: Private property		
Quote number	: SY/139/19 v4_NSW_0902_PFASOMP		
No. of samples received	: 4		
No. of samples analysed	: 4		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231X: PFOS result for samples #1 and #2 confirmed by re-extraction and re-analysis.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW120_210504	0902_MW121_210504	----	----	----
				Sampling date / time	04-May-2021 09:06	04-May-2021 09:16	----	----	----
Compound	CAS Number	LOR	Unit		ES2116724-001	ES2116724-002	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	**0.02**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW120_210504	0902_MW121_210504	----	----	----
				Sampling date / time	04-May-2021 09:06	04-May-2021 09:16	----	----	----
Compound	CAS Number	LOR	Unit		ES2116724-001	ES2116724-002	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.02**	**0.02**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	**0.02**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.02**	**0.02**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**94.3**	**104**	----	----	----
13C8-PFOA	----	0.02	%		**88.2**	**89.1**	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	0902_SD032_210504	----	----	----	----
			Sampling date / time	04-May-2021 10:51	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2116724-004	--------	--------	--------	--------
				Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**22.3**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0042**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	**0.0007**	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0293**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	**0.0002**	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	**0.0007**	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	**0.0008**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0902_SD032_210504	----	----	----	----
				Sampling date / time	04-May-2021 10:51	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2116724-004	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0359**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0335**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0352**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**112**	----	----	----	----
13C8-PFOA	----	0.0002	%		**102**	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW032_210504	----	----	----	----
				Sampling date / time	04-May-2021 09:42	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2116724-003	--------	--------	--------	--------
					Result	----	----	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**0.06**	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		**0.691**	----	----	----	----
Iron	7439-89-6	0.05	mg/L		**0.77**	----	----	----	----
Bromine	7726-95-6	0.1	mg/L		**0.6**	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		**0.19**	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.09**	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.09**	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		**1.7**	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		**1.8**	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.22**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.12**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.09**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**0.62**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.03**	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.76**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.06**	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW032_210504	----	----	----	----
				Sampling date / time	04-May-2021 09:42	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2116724-003	--------	--------	--------	--------
					Result	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.16**	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.02**	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.04**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW032_210504	----	----	----	----
				Sampling date / time	04-May-2021 09:42	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2116724-003	--------	--------	--------	--------
					Result	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.90**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.38**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.78**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**102**	----	----	----	----
13C8-PFOA	----	0.02	%		**102**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2116724**

Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Christopher.Redford@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 3
Order number	: 5.1	Quote number	: ES2021AECOMAU0008 (SY/139/19 v4_NSW_0902_PFASOMP)
C-O-C number	: 22332	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Private property		
Sampler	: MAT JENKINS, PRERANA YERDHALLI		

Dates

Date Samples Received	: 05-May-2021 14:00	Issue Date	: 06-May-2021
Client Requested Due Date	: 12-May-2021	Scheduled Reporting Date	: **12-May-2021**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: ----	Temperature	: 5.9 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 4 / 4

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **SAMPLE 5: MW021 (05/05/2021) was received extra and placed on hold.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

Method Sample ID	Sample Container Received	Preferred Sample Container for Analysis
Total Metals by ICP-MS - Suite A : EG020A-T		
0902_SW032_210504	- Clear Plastic Bottle - Natural	- Clear Plastic Bottle - Nitric Acid; Unfiltered

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2116724-004	04-May-2021 10:51	0902_SD032_210504	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
ES2116724-001	04-May-2021 09:06	0902_MW120_210504		✓	
ES2116724-002	04-May-2021 09:16	0902_MW121_210504		✓	
ES2116724-003	04-May-2021 09:42	0902_SW032_210504	✓	✓	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com

JACQUI DUNFORD

- *AU Certificate of Analysis - NATA (COA)	Email	jacqui.dunford@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jacqui.dunford@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jacqui.dunford@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	jacqui.dunford@aecom.com
- Chain of Custody (CoC) (COC)	Email	jacqui.dunford@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	jacqui.dunford@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	jacqui.dunford@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com

CHAIN OF CUSTODY

ALS COC#: 22332 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Private property

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME: 15:00 5/5/21

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW120_210504		04/05/2021 09:06 AM	Water	ALS: 2 Non ALS: 0	No		X		
002	0902_MW121_210504		04/05/2021 09:16 AM	Water	ALS: 2 Non ALS: 0	No		X		
003	0902_SW032_210504		04/05/2021 09:42 AM	Water	ALS: 2 ~~3~~ Non ALS: 0	No		X		
004	0902_SD032_210504	00620719040439	04/05/2021 10:51 AM	~~Water~~ Soil	ALS: 0 Non ALS: 0	No	X			00620719040439

+ Green + Red (1) + purple

5 MW021 5/5/21 Extra placed on hdv.

Environmental Division Sydney

Work Order Reference ES2116724

Telephone : + 61-2-8784 8555

CHAIN OF CUSTODY

ALS COC#: 22332 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	Chris. DATE TIME: 15/00 5/5/21

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Private property

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW120_210504	HDPE (no PTFE)	20 mL	00352010020560	Grey	No	
001	0902_MW120_210504	HDPE (no PTFE)	20 mL	00352010020742	Grey	No	
002	0902_MW121_210504	HDPE (no PTFE)	20 mL	00352010020250	Grey	No	
002	0902_MW121_210504	HDPE (no PTFE)	20 mL	00352010020596	Grey	No	
003	0902_SW032_210504	HDPE (no PTFE)	20 mL	00352010020705	Grey	No	
003	0902_SW032_210504	HDPE (no PTFE)	20 mL	00352010020338	Grey	No	

Total Bottle Count: ALS: 6, Non ALS: 0

Separate WO # for 22332

COC No:- 22352

AECOM

Chain of Custody

AECOM Australia Pty Ltd
Level 21, 420 George Street
Sydney, NSW, 2000
PO Box Q410, QVB PO, Sydney, NSW, 1230
T +61 2 8934 1000
F +61 2 8934 0001
Prerana.yerdhalli@aecom.com
Kurtis.Wathen@aecom.com
Email reports to: Geoff.Tredinnick@aecom.com; catherine.hansen@aecom.com; derp.labreports@esdat.com.au; mat.jenkins@aecom.com

Laboratory Details
Lab. Name: ALS
Lab. Address: 277-289 Woodpark Rd, Smithfield
Contact Name: Tyler Cachia
Lab. Ref:

Soil samples did not scan on compass

Tel: 0287 848 555
Fax: NA
Preliminary Report by:
Final Report by:
Lab Quote No: SY/139/19 v4

Sampled By: Prerana Yerdhalli, Kurtis Wathen
Project Name: NSW_0902_PFASOMP
AECOM Project #: 60612562 - 5.1
Purchase Order No:

Specifications: Please report in ESdat format only
Please send ESdat files to *DERP.labreports@esdat.com.au* and ensure that the files use the PROJECT NAME

	Yes (tick)
1. Urgent TAT required? (please circle: 24hr 48hr **5 days**)	
2. Fast TAT Guarantee Required?	
3. Is any sediment layer present in waters to be excluded from extractions?	
4. % extraneous material removed from samples to be reported as per NEPM 5.1.1?	
5. Special storage requirements? (details: _____)	

6. Report Format: ESdat
7. Project Manager: Geoff Tredinnick

Analysis Request

Lab. ID	Sample ID	Sampling Date	Matrix: soil	water	sed	Preservation: filt'ed	acid	ice	other	Container (No. & type)	PFAS extended Suite (standard LOR)	Nutrients (ammonia, nitrate, nitrite, phosphorous)	Aluminium, bromine, iron, maganese (Field filtered)	HOLD
	0902_													
	0902_													
	0902_													
	0902_													
	0902_													
	0902_													
	0902_													
	0902_													
	0902_													
	0902_													
	0902_													
	0902_													
	0902_													

Notes
Major ions to include: calcium, magnesium, potassium, sodium, chloride, sulphate, bicarbonate, carbonate, flouride.

TaT: Standard Turn Around Time on all samples.

Comments: **Please send ESdat files to DERP.labreports@esdat.com.au and ensure that the files use the PROJECT NAME**
Temp. received: °C
Report & invoice: Geoff.Tredinnick@aecom.com, catherine.hansen@aecom.com
Lab Report No.
Esky ID

Relinquished by:	Signed:	Date:	Relinquished by:	Signed:	Date:
Received by:	Signed:	Date:	Received by:	Signed:	Date:

THANKYOU

Fadi Soro

From: Angus Harding
Sent: Wednesday, 5 May 2021 11:03 AM
To: Fadi Soro
Cc: Helen Simpson; Wael Saleh; Christopher Redford
Subject: FW: [EXTERNAL] - Incoming batches with a short holding time

Hi Fadi,

We will have 2 Compass batches coming in via courier today:

22352 – 54 samples
22332 – 4 samples

A few notes for SR:

- Please be aware that both of these batches have samples for Nitrites and Nitrates which have a short holding time
- The TAT for these batches is standard time (5 days)
- The sediment bottles not scanned, filled out the containers manually, so although the app has these as not collected
- 2 samples on hold
- Upon arrival please let me know what bottles have been received for these two samples.
  - 0902_MW081_210304
  - 0902_SW023_210304
- For sample 0902_MW009_210303 there may be limited volume. PFAS has been prioritised, with metals collected, hopefully it will be enough.

Please let me know if there are any issues or questions.

Kind Regards,

Angus Harding
Client Services Officer, Environmental
Sydney

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EnviroMail™ 128 – Revised PFAS Bottle Requirements

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From: Jenkins, Mat [mailto:mat.jenkins@aecom.com]
Sent: Wednesday, 5 May 2021 10:45 AM
To: Christopher Redford <christopher.redford@ALSGlobal.com>; Angus Harding <angus.harding@ALSGlobal.com>; ALSEnviro Sydney <ALSEnviro.Sydney@ALSGlobal.com>
Cc: Tredinnick, Geoffrey A <Geoff.Tredinnick@aecom.com>; Yerdhalli, Prerana <Prerana.yerdhalli@aecom.com>; Wathen, Kurtis <Kurtis.Wathen@aecom.com>
Subject: [EXTERNAL] - Incoming batches with a short holding time

CAUTION: This email originated from outside of ALS. Do not click links or open attachments unless you recognize the sender and are sure content is relevant to you.

Hey Team,

We have two batches coming in today, for project NSW_0902_PFASOMP (not PFASMGMT), which has just been picked up by the courier. Please ensure these remain separate workorders.

These are for ALS compass COC

22352 – 54 samples
22332 – 4 samples

Please be aware that both of these batches have samples for **Nitrites and Nitrates** which have a short holding time. Please log these as soon as possible.
The TAT for these batches is standard time (5 days)
The sediment bottles were a struggle to scan, so the team has had to fill out the containers manually. So although the app has these as not collected, these are present

I have placed the below two samples on hold, I will let you know whether we would like these analysed for PFAS full suite. Upon arrival please let me know what bottles have been received for these two samples.

0902_MW081_210304
0902_SW023_210304

For sample 0902_MW009_210303 I do not believe that there was sufficient water to collect all requested analysis from the COC. PFAS has been prioritised, with metals collected, hopefully it will be enough.

Cheers, and let me know if any issues

Mat Jenkins
Graduate Data Scientist
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Please consider the environment before printing this email.

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2116724**	Page	: 1 of 9
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 05-May-2021
Order number	: 5.1	Date Analysis Commenced	: 06-May-2021
C-O-C number	: 22332	Issue Date	: 13-May-2021
Sampler	: MAT JENKINS, PRERANA YERDHALLI		
Site	: Private property		
Quote number	: SY/139/19 v4_NSW_0902_PFASOMP		
No. of samples received	: 4		
No. of samples analysed	: 4		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 3669402)									
ES2116725-047	Anonymous	EA055: Moisture Content	----	0.1	%	52.7	53.4	1.4	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 3670279)									
ES2116479-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	0.0023	0.0026	9.8	0% - 50%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0146	0.0170	15.7	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2116512-006	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0186	0.0171	8.5	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3670279)									
ES2116479-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3670279) - continued									
ES2116479-001	Anonymous	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2116512-006	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	0.0046	0.0040	14.3	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0037	0.0040	8.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	0.0034	0.0030	9.5	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0062	<0.0062	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.012	<0.012	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3670279)									
ES2116479-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2116512-006	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0062	<0.0062	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0062	<0.0062	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0062	<0.0062	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0062	<0.0062	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3670279)									

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3670279) - continued									
ES2116479-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	0.0050	0.0054	7.2	0% - 50%
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2116512-006	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0025	<0.0025	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020T: Total Metals by ICP-MS (QC Lot: 3666546)									
ES2116605-007	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	0.004	0.005	31.7	No Limit
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-T: Iron	7439-89-6	0.05	mg/L	0.05	0.04	0.0	No Limit
ES2116687-003	Anonymous	EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	0.0	No Limit
ES2116687-003	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.03	89.6	No Limit
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 3667271)									
ES2116666-012	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	14.2	14.2	0.0	0% - 20%
EW2102012-002	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.04	0.04	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3662835)									
ME2100755-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	0.01	0.01	0.00	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 3667270)									
ES2116725-003	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	1.25	1.24	0.0	0% - 20%
ES2116666-012	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.26	0.27	0.0	0% - 20%
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 3667266)									
ES2116666-011	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	3.0	3.0	0.0	0% - 20%
ES2116725-005	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	3.1	3.0	0.0	0% - 20%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 3667267)									
ES2116666-011	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	1.34	1.34	0.0	0% - 20%
ES2116725-005	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	1.07	1.06	0.0	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3670279)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	78.4	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	72.0	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.6	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.0	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	115	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3670279)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	85.5	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.6	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.6	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.0	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.0	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.8	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	91.5	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3670279)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	96.6	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	93.3	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	90.2	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	110	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.4	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.0	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3670279)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	87.6	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	96.8	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	81.2	65.0	137

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3670279) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	98.0	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG020T: Total Metals by ICP-MS (QCLot: 3666546)								
EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	93.3	82.0	120
EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	87.4	85.0	113
EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	110	85.0	117
EK055G: Ammonia as N by Discrete Analyser (QCLot: 3667271)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	109	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 3662835)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	104	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3667270)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	103	91.0	113
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3667266)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	10 mg/L	84.5	69.0	101
				<0.1	1 mg/L	85.3	70.0	118
				<0.1	5 mg/L	93.8	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3667267)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	90.7	71.0	101
				<0.01	0.442 mg/L	101	72.0	108
				<0.01	1 mg/L	107	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3670960)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	93.0	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	98.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	0.25 µg/L	95.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	95.0	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	72.8	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	95.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3670960)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	86.7	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	111	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	101	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	111	71.0	129

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3670960) - continued								
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	113	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	101	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	114	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3670960)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	99.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	99.6	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	83.8	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	93.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	90.9	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	98.4	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3670960)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	103	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	88.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	104	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	85.8	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
				Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3670279)							
ES2116479-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	91.2	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	90.4	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	69.6	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	96.0	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	# Not Determined	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	80.4	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3670279)							

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3670279) - continued							
ES2116479-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	74.3	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	81.6	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	76.8	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	78.4	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	83.6	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	81.6	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	83.6	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	81.6	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	84.8	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	79.2	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	77.1	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3670279)							
ES2116479-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	84.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	80.0	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	85.9	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	85.7	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	89.9	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	83.2	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	76.4	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3670279)							
ES2116479-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	81.2	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	125	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	88.4	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	122	69.2	143

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 3666546)							
ES2116635-001	Anonymous	EG020A-T: Manganese	7439-96-5	1 mg/L	94.5	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 3667271)							
ES2116666-012	Anonymous	EK055G: Ammonia as N	7664-41-7	1 mg/L	# Not Determined	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK057G: Nitrite as N by Discrete Analyser (QCLot: 3662835)							
ME2100755-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	110	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3667270)							
ES2116666-012	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	71.1	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3667266)							
ES2116666-012	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	# Not Determined	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3667267)							
ES2116666-012	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	# Not Determined	70.0	130

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2116724**	Page	: 1 of 8
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 05-May-2021
Site	: Private property	Issue Date	: 13-May-2021
Sampler	: MAT JENKINS, PRERANA YERDHALLI	No. of samples received	: 4
Order number	: 5.1	No. of samples analysed	: 4

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2116479--001	Anonymous	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EK055G: Ammonia as N by Discrete Analyser	ES2116666--012	Anonymous	**Ammonia as N**	7664-41-7	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser	ES2116666--012	Anonymous	**Total Kjeldahl Nitrogen as N**	----	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EK067G: Total Phosphorus as P by Discrete Analyser	ES2116666--012	Anonymous	**Total Phosphorus as P**	----	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Method	Count QC	Count Regular	Rate (%) Actual	Rate (%) Expected	Quality Control Specification
Laboratory Duplicates (DUP)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	0	19	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	0	19	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container* / Client Sample ID(s)	*Sample Date*	*Extraction / Preparation* Date extracted	Due for extraction	Evaluation	*Analysis* Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055) 0902_SD032_210504	**04-May-2021**	**----**	----	----	**10-May-2021**	18-May-2021	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD032_210504	**04-May-2021**	**11-May-2021**	31-Oct-2021	✓	**11-May-2021**	20-Jun-2021	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X) 0902_SD032_210504	**04-May-2021**	**11-May-2021**	31-Oct-2021	✓	**11-May-2021**	20-Jun-2021	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0902_SD032_210504	**04-May-2021**	**11-May-2021**	31-Oct-2021	✓	**11-May-2021**	20-Jun-2021	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD032_210504	**04-May-2021**	**11-May-2021**	31-Oct-2021	✓	**11-May-2021**	20-Jun-2021	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) 0902_SD032_210504	**04-May-2021**	**11-May-2021**	31-Oct-2021	✓	**11-May-2021**	20-Jun-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Natural (EG020A-T) 0902_SW032_210504	**04-May-2021**	**09-May-2021**	31-Oct-2021	✓	**10-May-2021**	31-Oct-2021	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G) 0902_SW032_210504	**04-May-2021**	**----**	----	----	**10-May-2021**	01-Jun-2021	✓
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G) 0902_SW032_210504	**04-May-2021**	**----**	----	----	**06-May-2021**	06-May-2021	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G) 0902_SW032_210504	**04-May-2021**	**----**	----	----	**10-May-2021**	01-Jun-2021	✓
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK061G) 0902_SW032_210504	**04-May-2021**	**10-May-2021**	01-Jun-2021	✓	**10-May-2021**	01-Jun-2021	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G) 0902_SW032_210504	**04-May-2021**	**10-May-2021**	01-Jun-2021	✓	**10-May-2021**	01-Jun-2021	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0902_MW120_210504, 0902_MW121_210504, 0902_SW032_210504	**04-May-2021**	**12-May-2021**	31-Oct-2021	✓	**12-May-2021**	31-Oct-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X)								
0902_MW120_210504, 0902_SW032_210504	0902_MW121_210504,	**04-May-2021**	**12-May-2021**	31-Oct-2021	✓	**12-May-2021**	31-Oct-2021	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X)								
0902_MW120_210504, 0902_SW032_210504	0902_MW121_210504,	**04-May-2021**	**12-May-2021**	31-Oct-2021	✓	**12-May-2021**	31-Oct-2021	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0902_MW120_210504, 0902_SW032_210504	0902_MW121_210504,	**04-May-2021**	**12-May-2021**	31-Oct-2021	✓	**12-May-2021**	31-Oct-2021	✓
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X)								
0902_MW120_210504, 0902_SW032_210504	0902_MW121_210504,	**04-May-2021**	**12-May-2021**	31-Oct-2021	✓	**12-May-2021**	31-Oct-2021	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	4	**25.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Ammonia as N by Discrete analyser	EK055G	2	15	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	8	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	19	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	3	13	**23.08**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Ammonia as N by Discrete analyser	EK055G	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	3	19	**15.79**	**15.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	20	**15.00**	**15.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	19	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO3-. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2116725**	Page	: 1 of 36
Amendment	: **1**		
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 05-May-2021 14:00
Order number	: 5.1	Date Analysis Commenced	: 05-May-2021
C-O-C number	: 22352	Issue Date	: 20-May-2021 10:45
Sampler	: MAT JENKINS, PRERANA YERDHALLI		
Site	: 5/5/2021		
Quote number	: SY/139/19 v4_NSW_0902_PFASOMP		
No. of samples received	: 55		
No. of samples analysed	: 55		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Pabi Subba	Senior Organic Chemist	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X: Particular samples required dilution due to sample matrix . LOR values have been adjusted accordingly.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EG020: Bromine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- EP231X: Positive results for analytes Perfluorobutane sulfonic acid (PFBS) & Perfluorohexane sulfonic acid (PFHxS) on sample ES2116725_049 (0902_QC100_210503) have been confirmed by re-extraction & re-analysis.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
- EP231X-INJ: The direct injection LCMSMS method may be used where the sample matrix is not suitable for Solid Phase Extraction (e.g. significant particulate load) or where only a single sample container is received.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW007_210503	0902_MW008_210503	0902_MW009_210503	0902_MW010_210503	0902_MW022_210505
				Sampling date / time	03-May-2021 09:44	03-May-2021 08:17	03-May-2021 08:34	03-May-2021 08:50	05-May-2021 08:49
Compound	CAS Number	LOR	Unit		ES2116725-001	ES2116725-002	ES2116725-003	ES2116725-004	ES2116725-005
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	**0.14**	----	<0.01
Manganese	7439-96-5	0.001	mg/L		----	----	**0.240**	----	**0.866**
Iron	7439-89-6	0.05	mg/L		----	----	**0.25**	----	**7.02**
Bromine	7726-95-6	0.1	mg/L		----	----	**0.4**	----	**1.3**
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	----	----	**2.48**
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	----	----	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	----	----	**0.03**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	**1.25**	----	**0.03**
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	----	**1.5**	----	**3.1**
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	----	**2.8**	----	**3.1**
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	**1.00**	----	**1.07**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.16**	<0.02	**0.54**	**0.88**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.13**	<0.02	**0.54**	**0.90**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**0.09**	**0.31**	**0.03**	**3.47**	**8.06**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.12**	**0.47**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.02**	**0.15**	**4.67**	**8.91**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**0.1**	**0.4**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.03**	<0.02	**0.22**	**0.68**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW007_210503	0902_MW008_210503	0902_MW009_210503	0902_MW010_210503	0902_MW022_210505
				Sampling date / time	03-May-2021 09:44	03-May-2021 08:17	03-May-2021 08:34	03-May-2021 08:50	05-May-2021 08:49
Compound	CAS Number	LOR	Unit		ES2116725-001	ES2116725-002	ES2116725-003	ES2116725-004	ES2116725-005
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.16**	<0.02	**1.19**	**1.87**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.11**	**0.38**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.19**	**0.69**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.14**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.04**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	**0.09**	**0.14**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW007_210503	0902_MW008_210503	0902_MW009_210503	0902_MW010_210503	0902_MW022_210505
				Sampling date / time	03-May-2021 09:44	03-May-2021 08:17	03-May-2021 08:34	03-May-2021 08:50	05-May-2021 08:49
					ES2116725-001	ES2116725-002	ES2116725-003	ES2116725-004	ES2116725-005
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.09**	**0.81**	**0.18**	**11.2**	**23.6**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.09**	**0.33**	**0.18**	**8.14**	**17.0**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.09**	**0.68**	**0.18**	**10.6**	**22.0**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**102**	**92.6**	**111**	**93.8**	**99.3**
13C8-PFOA	----	0.02	%		**87.5**	**86.8**	**103**	**87.1**	**89.6**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW024_210503	0902_MW025_210504	0902_MW026_210504	0902_MW027_210503	0902_MW028_210503
				Sampling date / time	03-May-2021 11:30	04-May-2021 16:31	04-May-2021 14:40	03-May-2021 11:18	03-May-2021 11:02
					ES2116725-006	ES2116725-007	ES2116725-008	ES2116725-009	ES2116725-010
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.15**	<0.02	**0.42**	**0.19**	**3.79**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.10**	<0.02	**0.40**	**0.18**	**4.20**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**0.27**	**0.03**	**3.16**	**0.98**	**12.1**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.14**	**0.03**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.07**	<0.01	**0.48**	**0.31**	**0.04**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	**0.7**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.02**	<0.02	**0.09**	**0.03**	**1.31**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.09**	<0.02	**0.46**	**0.12**	**6.08**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.08**	<0.02	**0.86**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.15**	**0.03**	**0.16**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW024_210503	0902_MW025_210504	0902_MW026_210504	0902_MW027_210503	0902_MW028_210503
				Sampling date / time	03-May-2021 11:30	04-May-2021 16:31	04-May-2021 14:40	03-May-2021 11:18	03-May-2021 11:02
Compound	CAS Number	LOR	Unit		ES2116725-006	ES2116725-007	ES2116725-008	ES2116725-009	ES2116725-010
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.70**	**0.03**	**5.38**	**1.87**	**29.2**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.34**	**0.03**	**3.64**	**1.29**	**12.1**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.60**	**0.03**	**4.84**	**1.66**	**25.0**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**101**	**101**	**105**	**108**	**87.7**
13C8-PFOA	----	0.02	%		**102**	**100**	**102**	**102**	**119**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW030_210503	0902_MW040_210503	0902_MW041_210503	0902_MW042_210503	0902_MW043_210503
				Sampling date / time	03-May-2021 16:02	03-May-2021 07:25	03-May-2021 09:01	03-May-2021 09:11	03-May-2021 09:22
					ES2116725-011	ES2116725-012	ES2116725-013	ES2116725-014	ES2116725-015
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.28**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.27**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**1.84**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.07**	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**1.07**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		----	**2.34**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		----	**3.24**	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		----	**22.8**	**0.11**	**0.03**	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		----	**1.36**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		----	**65.2**	**0.04**	**0.16**	**0.06**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		----	**0.50**	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.10	µg/L		<0.10	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.06**	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.30**	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.06**	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.11**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW030_210503	0902_MW040_210503	0902_MW041_210503	0902_MW042_210503	0902_MW043_210503
				Sampling date / time	03-May-2021 16:02	03-May-2021 07:25	03-May-2021 09:01	03-May-2021 09:11	03-May-2021 09:22
Compound	CAS Number	LOR	Unit		ES2116725-011	ES2116725-012	ES2116725-013	ES2116725-014	ES2116725-015
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		----	**0.8**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		----	**1.30**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		----	**5.29**	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		----	**0.53**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		----	**1.23**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		----	**0.07**	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		----	**0.03**	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		----	**0.03**	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		----	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		----	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		----	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW030_210503	0902_MW040_210503	0902_MW041_210503	0902_MW042_210503	0902_MW043_210503
				Sampling date / time	03-May-2021 16:02	03-May-2021 07:25	03-May-2021 09:01	03-May-2021 09:11	03-May-2021 09:22
Compound	CAS Number	LOR	Unit		ES2116725-011	ES2116725-012	ES2116725-013	ES2116725-014	ES2116725-015
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		----	**0.22**	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		----	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		----	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		----	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		----	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		----	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		----	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		----	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		----	**0.10**	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		----	**0.06**	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		----	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**4.06**	----	----	----	----

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW030_210503	0902_MW040_210503	0902_MW041_210503	0902_MW042_210503	0902_MW043_210503
				Sampling date / time	03-May-2021 16:02	03-May-2021 07:25	03-May-2021 09:01	03-May-2021 09:11	03-May-2021 09:22
					ES2116725-011	ES2116725-012	ES2116725-013	ES2116725-014	ES2116725-015
					Result	Result	Result	Result	Result
EP231P: PFAS Sums - Continued									
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**2.91**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**3.72**	----	----	----	----
Sum of PFAS	----	0.01	µg/L		----	----	----	**0.19**	----
Sum of PFAS	----	0.01	µg/L		----	**105**	**0.15**	----	**0.06**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		----	----	----	**0.19**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		----	**88.0**	**0.15**	----	**0.06**
Sum of PFAS (WA DER List)	----	0.01	µg/L		----	----	----	**0.19**	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		----	**99.6**	**0.15**	----	**0.06**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		----	**117**	**96.9**	**96.3**	**93.6**
13C4-PFOS	----	0.02	%		**94.4**	----	----	----	----
13C8-PFOA	----	0.02	%		----	**90.5**	**91.9**	**84.5**	**97.8**
13C8-PFOA	----	0.02	%		**95.8**	----	----	----	----

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW046_210504	0902_MW047_210503	0902_MW048_210503	0902_MW050_210503	0902_MW051_210503
				Sampling date / time	04-May-2021 15:04	03-May-2021 10:09	03-May-2021 10:02	03-May-2021 10:47	03-May-2021 10:28
					ES2116725-016	ES2116725-017	ES2116725-018	ES2116725-019	ES2116725-020
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**1.55**	**0.06**	**0.50**	**36.7**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**1.75**	**0.05**	**0.42**	**46.5**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**0.04**	**8.66**	**0.12**	**2.95**	**287**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.32**	<0.02	**0.32**	**22.6**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**3.08**	<0.01	**9.90**	**80.0**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.13**
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.2**	<0.1	**0.2**	**10.7**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.34**	<0.02	**0.34**	**10.4**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**1.44**	**0.06**	**0.96**	**85.3**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.24**	<0.02	**0.17**	**4.20**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.37**	<0.01	**0.35**	**11.2**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.09**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	**0.03**	**0.07**
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW046_210504	0902_MW047_210503	0902_MW048_210503	0902_MW050_210503	0902_MW051_210503
				Sampling date / time	04-May-2021 15:04	03-May-2021 10:09	03-May-2021 10:02	03-May-2021 10:47	03-May-2021 10:28
Compound	CAS Number	LOR	Unit		ES2116725-016	ES2116725-017	ES2116725-018	ES2116725-019	ES2116725-020
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	**0.15**	**0.08**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.04**	**18.0**	**0.29**	**16.3**	**595**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.04**	**11.7**	**0.12**	**12.8**	**367**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.04**	**15.9**	**0.24**	**15.5**	**526**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**107**	**88.4**	**102**	**105**	**79.7**
13C8-PFOA	----	0.02	%		**101**	**84.2**	**100**	**109**	**104**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW052_210503	0902_MW053_210503	0902_MW054_210504	0902_MW058_210504	0902_MW060_210504
				Sampling date / time	03-May-2021 10:19	03-May-2021 15:50	04-May-2021 11:11	04-May-2021 11:05	04-May-2021 13:24
					ES2116725-021	ES2116725-022	ES2116725-023	ES2116725-024	ES2116725-025
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**5.03**	**0.09**	**0.11**	**1.34**	**0.19**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**4.54**	**0.03**	**0.06**	**1.23**	**0.25**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**14.2**	**0.18**	**0.17**	**2.85**	**2.04**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.16**	<0.02	<0.02	**0.06**	**0.08**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.27**	**0.09**	<0.01	**0.13**	**0.54**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**1.8**	**0.2**	<0.1	**0.2**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**2.70**	**0.24**	<0.02	**0.39**	**0.07**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**4.86**	**0.29**	**0.03**	**2.13**	**0.34**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.90**	**0.07**	<0.02	**0.40**	**0.05**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.36**	**0.07**	<0.01	**0.39**	**0.10**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW052_210503	0902_MW053_210503	0902_MW054_210504	0902_MW058_210504	0902_MW060_210504
				Sampling date / time	03-May-2021 10:19	03-May-2021 15:50	04-May-2021 11:11	04-May-2021 11:05	04-May-2021 13:24
Compound	CAS Number	LOR	Unit		ES2116725-021	ES2116725-022	ES2116725-023	ES2116725-024	ES2116725-025
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**34.8**	**1.26**	**0.37**	**9.12**	**3.66**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**14.5**	**0.27**	**0.17**	**2.98**	**2.58**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**30.1**	**1.23**	**0.31**	**7.83**	**3.33**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**95.2**	**92.4**	**96.0**	**100**	**108**
13C8-PFOA	----	0.02	%		**103**	**109**	**102**	**99.4**	**101**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW061_210504	0902_MW062_210504	0902_MW063_210504	0902_MW064_210504	0902_MW065_210504
				Sampling date / time	04-May-2021 13:39	04-May-2021 16:10	04-May-2021 15:52	04-May-2021 14:22	04-May-2021 13:56
					ES2116725-026	ES2116725-027	ES2116725-028	ES2116725-029	ES2116725-030
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.06**	<0.02	**1.95**	**0.15**	**0.04**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.04**	<0.02	**1.83**	**0.13**	**0.04**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**0.37**	**0.14**	**6.74**	**0.94**	**0.24**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.83**	**0.04**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.71**	**0.30**	**2.76**	**0.34**	**0.02**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.3**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.23**	<0.02	**0.46**	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.10**	<0.02	**2.33**	**0.04**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.04**	<0.02	**0.29**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.04**	<0.01	**0.54**	**0.02**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW061_210504	0902_MW062_210504	0902_MW063_210504	0902_MW064_210504	0902_MW065_210504
				Sampling date / time	04-May-2021 13:39	04-May-2021 16:10	04-May-2021 15:52	04-May-2021 14:22	04-May-2021 13:56
Compound	CAS Number	LOR	Unit		ES2116725-026	ES2116725-027	ES2116725-028	ES2116725-029	ES2116725-030
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.59**	**0.44**	**18.0**	**1.66**	**0.34**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.08**	**0.44**	**9.50**	**1.28**	**0.26**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.55**	**0.44**	**15.4**	**1.49**	**0.30**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**115**	**118**	**102**	**104**	**97.1**
13C8-PFOA	----	0.02	%		**104**	**98.9**	**96.3**	**103**	**98.8**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW066_210504	0902_MW068_210504	0902_MW070_210504	0902_MW071_210504	0902_MW075_210504
				Sampling date / time	04-May-2021 14:08	04-May-2021 16:19	04-May-2021 15:31	04-May-2021 15:41	04-May-2021 11:51
Compound	CAS Number	LOR	Unit		ES2116725-031	ES2116725-032	ES2116725-033	ES2116725-034	ES2116725-035
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	----	----	**0.01**
Manganese	7439-96-5	0.001	mg/L		----	----	----	----	**0.212**
Iron	7439-89-6	0.05	mg/L		----	----	----	----	**0.07**
Bromine	7726-95-6	0.1	mg/L		----	----	----	----	**0.3**
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	----	----	<0.01
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	----	----	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	----	----	**4.04**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	----	----	**4.04**
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	----	----	----	**1.0**
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	----	----	----	**5.0**
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	----	----	**0.24**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.13**	**0.19**	**0.64**	**0.30**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.12**	**0.19**	**0.13**	**0.04**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**0.85**	**1.85**	**0.87**	**0.31**	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.04**	**0.07**	**0.04**	**0.02**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.37**	**0.30**	**0.88**	**1.00**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.1**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.05**	**0.18**	**0.11**	<0.02

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW066_210504	0902_MW068_210504	0902_MW070_210504	0902_MW071_210504	0902_MW075_210504
				Sampling date / time	04-May-2021 14:08	04-May-2021 16:19	04-May-2021 15:31	04-May-2021 15:41	04-May-2021 11:51
Compound	CAS Number	LOR	Unit		ES2116725-031	ES2116725-032	ES2116725-033	ES2116725-034	ES2116725-035
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.07**	**0.23**	**0.31**	**0.10**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.02**	**0.05**	**0.02**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.02**	**0.07**	**0.10**	**0.03**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW066_210504	0902_MW068_210504	0902_MW070_210504	0902_MW071_210504	0902_MW075_210504
				Sampling date / time	04-May-2021 14:08	04-May-2021 16:19	04-May-2021 15:31	04-May-2021 15:41	04-May-2021 11:51
Compound	CAS Number	LOR	Unit		ES2116725-031	ES2116725-032	ES2116725-033	ES2116725-034	ES2116725-035
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.60**	**2.97**	**3.30**	**1.93**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.22**	**2.15**	**1.75**	**1.31**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.44**	**2.71**	**3.13**	**1.87**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**94.1**	**103**	**95.9**	**96.5**	**88.3**
13C8-PFOA	----	0.02	%		**99.1**	**106**	**120**	**120**	**81.0**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW076_210503	0902_MW077_210503	0902_MW078_210503	0902_MW079_210503	0902_MW080_210503
				Sampling date / time	03-May-2021 15:09	03-May-2021 15:23	03-May-2021 14:53	03-May-2021 14:34	03-May-2021 14:15
					ES2116725-036	ES2116725-037	ES2116725-038	ES2116725-039	ES2116725-040
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	**0.16**	**0.39**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.16**	**0.37**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		<0.02	**0.03**	<0.02	**1.13**	**2.21**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.03**	**0.12**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.04**	<0.01	<0.01	**0.88**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.03**	**0.09**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.14**	**0.47**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.06**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.02**	**0.10**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW076_210503	0902_MW077_210503	0902_MW078_210503	0902_MW079_210503	0902_MW080_210503
				Sampling date / time	03-May-2021 15:09	03-May-2021 15:23	03-May-2021 14:53	03-May-2021 14:34	03-May-2021 14:15
Compound	CAS Number	LOR	Unit		ES2116725-036	ES2116725-037	ES2116725-038	ES2116725-039	ES2116725-040
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.07**	<0.01	**1.67**	**4.69**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.07**	<0.01	**1.13**	**3.09**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.07**	<0.01	**1.48**	**4.20**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**77.2**	**77.8**	**94.9**	**107**	**95.6**
13C8-PFOA	----	0.02	%		**82.0**	**82.0**	**96.1**	**111**	**101**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW082_210504	0902_MW086_210503	0902_MW091_210503	0902_MW023_210505	0902_QC100_210503
				Sampling date / time	04-May-2021 12:09	03-May-2021 13:23	03-May-2021 13:46	05-May-2021 09:06	03-May-2021 09:51
					ES2116725-041	ES2116725-042	ES2116725-043	ES2116725-045	ES2116725-049
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	**0.02**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		<0.02	<0.02	**0.04**	**0.09**	**0.10**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	**0.03**	**0.18**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW082_210504	0902_MW086_210503	0902_MW091_210503	0902_MW023_210505	0902_QC100_210503
				Sampling date / time	04-May-2021 12:09	03-May-2021 13:23	03-May-2021 13:46	05-May-2021 09:06	03-May-2021 09:51
Compound	CAS Number	LOR	Unit		ES2116725-041	ES2116725-042	ES2116725-043	ES2116725-045	ES2116725-049
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	**0.07**	**0.29**	**0.12**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	**0.07**	**0.27**	**0.10**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	**0.07**	**0.29**	**0.12**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**90.2**	**98.2**	**118**	**94.3**	**106**
13C8-PFOA	----	0.02	%		**98.6**	**91.3**	**94.8**	**100**	**99.0**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC101_210504	0902_MW057_210504	0902_MW021_210505	----	----
				Sampling date / time	04-May-2021 13:19	04-May-2021 11:22	05-May-2021 00:00	----	----
Compound	CAS Number	LOR	Unit		ES2116725-050	ES2116725-053	ES2116725-055	--------	--------
					Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.19**	**0.20**	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.08**	**0.13**	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		<0.02	**0.72**	**2.43**	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.11**	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.12**	**3.08**	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.1**	**0.1**	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.06**	**0.15**	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.11**	**0.37**	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.02**	**0.09**	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.05**	**0.31**	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	**0.05**	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC101_210504	0902_MW057_210504	0902_MW021_210505	----	----
				Sampling date / time	04-May-2021 13:19	04-May-2021 11:22	05-May-2021 00:00	----	----
Compound	CAS Number	LOR	Unit		ES2116725-050	ES2116725-053	ES2116725-055	--------	--------
					Result	Result	Result	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**1.45**	**7.02**	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.84**	**5.51**	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**1.37**	**6.73**	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**102**	**96.0**	**72.1**	----	----
13C8-PFOA	----	0.02	%		**101**	**116**	**72.0**	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	0902_SD002_210505	0902_SD003_210505	----	----	----
			Sampling date / time	05-May-2021 08:21	05-May-2021 09:35	----	----	----
Compound	CAS Number	LOR	Unit	ES2116725-047	ES2116725-048	--------	--------	--------
				Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**52.7**	**51.6**	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	**0.0036**	**0.0041**	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	**0.0051**	**0.0066**	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0599**	**0.0771**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	**0.0083**	**0.0092**	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.599**	**0.630**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	**0.0122**	**0.0288**	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.005	**0.003**	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	**0.0059**	**0.0077**	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	**0.0074**	**0.0109**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	**0.0033**	**0.0039**	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	**0.0107**	**0.0105**	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	**0.0107**	**0.0096**	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	**0.0198**	**0.0198**	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	**0.0282**	**0.0211**	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	**0.0344**	**0.0230**	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	**0.0092**	**0.0049**	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	**0.0056**	**0.0025**	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	**0.0186**	**0.0128**	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0025	<0.0005	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0902_SD002_210505	0902_SD003_210505	----	----	----
				Sampling date / time	05-May-2021 08:21	05-May-2021 09:35	----	----	----
Compound	CAS Number	LOR	Unit		ES2116725-047	ES2116725-048	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0025	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0025	<0.0005	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0025	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0010	<0.0002	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0010	<0.0002	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0010	<0.0005	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		**0.0021**	**0.0010**	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		**0.0048**	**0.0010**	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		**0.0043**	<0.0005	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.853**	**0.888**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.659**	**0.707**	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.697**	**0.749**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**90.0**	**100**	----	----	----
13C8-PFOA	----	0.0002	%		**85.0**	**98.0**	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW002_210505	0902_SW037_210505	0902_SW003_210505	----	----
				Sampling date / time	05-May-2021 08:22	05-May-2021 08:57	05-May-2021 08:28	----	----
Compound	CAS Number	LOR	Unit		ES2116725-044	ES2116725-046	ES2116725-054	--------	--------
					Result	Result	Result	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	**0.04**	----	----
Manganese	7439-96-5	0.001	mg/L		----	----	**0.046**	----	----
Iron	7439-89-6	0.05	mg/L		----	----	**0.54**	----	----
Bromine	7726-95-6	0.1	mg/L		----	----	<0.1	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	**0.36**	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	<0.01	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	**0.04**	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	**0.04**	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	----	**14.6**	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	----	**14.6**	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	**6.95**	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**1.22**	<0.02	**1.63**	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**1.10**	<0.02	**0.86**	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**3.16**	**0.07**	**2.82**	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.51**	<0.02	**0.43**	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**6.88**	**0.19**	**6.41**	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	**0.03**	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**0.4**	<0.1	**0.4**	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.74**	<0.02	**0.70**	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW002_210505	0902_SW037_210505	0902_SW003_210505	----	----
				Sampling date / time	05-May-2021 08:22	05-May-2021 08:57	05-May-2021 08:28	----	----
Compound	CAS Number	LOR	Unit		ES2116725-044	ES2116725-046	ES2116725-054	--------	--------
					Result	Result	Result	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**2.17**	**0.02**	**1.87**	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.47**	<0.02	**0.38**	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.67**	<0.01	**0.58**	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		**0.20**	<0.02	**0.34**	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		**0.11**	<0.02	**0.18**	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		**0.04**	<0.02	**0.05**	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		**0.26**	<0.05	**0.33**	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW002_210505	0902_SW037_210505	0902_SW003_210505	----	----
				Sampling date / time	05-May-2021 08:22	05-May-2021 08:57	05-May-2021 08:28	----	----
Compound	CAS Number	LOR	Unit		ES2116725-044	ES2116725-046	ES2116725-054	--------	--------
					Result	Result	Result	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		**0.17**	<0.05	**0.14**	**----**	**----**
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	**----**	**----**
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**18.1**	**0.28**	**17.2**	**----**	**----**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**10.0**	**0.26**	**9.23**	**----**	**----**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**16.1**	**0.28**	**15.3**	**----**	**----**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**106**	**93.4**	**95.2**	**----**	**----**
13C8-PFOA	----	0.02	%		**95.5**	**101**	**115**	**----**	**----**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_QC300_210503	0902_QC301_210504	----	----	----
				Sampling date / time	03-May-2021 07:09	04-May-2021 07:09	----	----	----
Compound	CAS Number	LOR	Unit		ES2116725-051	ES2116725-052	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		----	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		----	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		----	<0.02	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		----	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		----	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		----	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.10	µg/L		<0.10	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_QC300_210503	0902_QC301_210504	----	----	----
				Sampling date / time	03-May-2021 07:09	04-May-2021 07:09	----	----	----
Compound	CAS Number	LOR	Unit		ES2116725-051	ES2116725-052	--------	--------	--------
					Result	Result	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		----	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		----	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		----	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		----	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		----	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		----	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		----	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		----	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		----	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		----	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		----	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_QC300_210503	0902_QC301_210504	----	----	----
				Sampling date / time	03-May-2021 07:09	04-May-2021 07:09	----	----	----
Compound	CAS Number	LOR	Unit		ES2116725-051	ES2116725-052	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		----	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		----	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		----	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		----	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		----	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		----	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		----	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		----	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		----	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		----	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		----	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_QC300_210503	0902_QC301_210504	----	----	----
				Sampling date / time	03-May-2021 07:09	04-May-2021 07:09	----	----	----
Compound	CAS Number	LOR	Unit		ES2116725-051	ES2116725-052	--------	--------	--------
					Result	Result	----	----	----
EP231P: PFAS Sums - Continued									
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS	----	0.01	µg/L		----	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		----	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		----	<0.01	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		----	**86.1**	----	----	----
13C4-PFOS	----	0.02	%		**100**	----	----	----	----
13C8-PFOA	----	0.02	%		----	**112**	----	----	----
13C8-PFOA	----	0.02	%		**103**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2116725**

Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Christopher.Redford@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 4
Order number	: 5.1	Quote number	: ES2021AECOMAU0008 (SY/139/19 v4_NSW_0902_PFASOMP)
C-O-C number	: 22352	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 5/5/2021		
Sampler	: MAT JENKINS, PRERANA YERDHALLI		

Dates

Date Samples Received	: 05-May-2021 14:00	Issue Date	: 05-May-2021
Client Requested Due Date	: 12-May-2021	Scheduled Reporting Date	: **12-May-2021**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: ----	Temperature	: 5.9 - Ice present
Receipt Detail	:	No. of samples received / analysed	: 54 / 54

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2116725-047	05-May-2021 08:21	0902_SD002_210505	✓	✓
ES2116725-048	05-May-2021 09:35	0902_SD003_210505	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P	WATER - NT-11 Total Nitrogen and Total Phosphorus
ES2116725-001	03-May-2021 09:44	0902_MW007_210503		✓		
ES2116725-002	03-May-2021 08:17	0902_MW008_210503		✓		
ES2116725-003	03-May-2021 08:34	0902_MW009_210503	✓	✓		✓
ES2116725-004	03-May-2021 08:50	0902_MW010_210503		✓		
ES2116725-005	05-May-2021 08:49	0902_MW022_210505	✓	✓	✓	
ES2116725-006	03-May-2021 11:30	0902_MW024_210503		✓		
ES2116725-007	04-May-2021 16:31	0902_MW025_210504		✓		
ES2116725-008	04-May-2021 14:40	0902_MW026_210504		✓		
ES2116725-009	03-May-2021 11:18	0902_MW027_210503		✓		
ES2116725-010	03-May-2021 11:02	0902_MW028_210503		✓		
ES2116725-011	03-May-2021 16:02	0902_MW030_210503		✓		
ES2116725-012	05-May-2021 07:25	0902_MW040_210503		✓		
ES2116725-013	03-May-2021 09:01	0902_MW041_210503		✓		
ES2116725-014	03-May-2021 09:11	0902_MW042_210503		✓		
ES2116725-015	03-May-2021 09:22	0902_MW043_210503		✓		
ES2116725-016	04-May-2021 15:04	0902_MW046_210504		✓		
ES2116725-017	03-May-2021 10:09	0902_MW047_210503		✓		
ES2116725-018	03-May-2021 10:02	0902_MW048_210503		✓		
ES2116725-019	03-May-2021 10:47	0902_MW050_210503		✓		
ES2116725-020	03-May-2021 10:28	0902_MW051_210503		✓		

			WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P	WATER - NT-11 Total Nitrogen and Total Phosphorus
ES2116725-021	03-May-2021 10:19	0902_MW052_210503		✓		
ES2116725-022	03-May-2021 15:50	0902_MW053_210503		✓		
ES2116725-023	04-May-2021 11:11	0902_MW054_210504		✓		
ES2116725-024	04-May-2021 11:05	0902_MW058_210504		✓		
ES2116725-025	04-May-2021 13:24	0902_MW060_210504		✓		
ES2116725-026	04-May-2021 13:39	0902_MW061_210504		✓		
ES2116725-027	04-May-2021 16:10	0902_MW062_210504		✓		
ES2116725-028	04-May-2021 15:52	0902_MW063_210504		✓		
ES2116725-029	04-May-2021 14:22	0902_MW064_210504		✓		
ES2116725-030	04-May-2021 13:56	0902_MW065_210504		✓		
ES2116725-031	04-May-2021 14:08	0902_MW066_210504		✓		
ES2116725-032	04-May-2021 16:19	0902_MW068_210504		✓		
ES2116725-033	04-May-2021 15:31	0902_MW070_210504		✓		
ES2116725-034	04-May-2021 15:41	0902_MW071_210504		✓		
ES2116725-035	04-May-2021 11:51	0902_MW075_210504	✓	✓	✓	
ES2116725-036	03-May-2021 15:09	0902_MW076_210503		✓		
ES2116725-037	03-May-2021 15:23	0902_MW077_210503		✓		
ES2116725-038	03-May-2021 14:53	0902_MW078_210503		✓		
ES2116725-039	03-May-2021 14:34	0902_MW079_210503		✓		
ES2116725-040	03-May-2021 14:15	0902_MW080_210503		✓		
ES2116725-041	04-May-2021 12:09	0902_MW082_210504		✓		
ES2116725-042	03-May-2021 13:23	0902_MW086_210503		✓		
ES2116725-043	03-May-2021 13:46	0902_MW091_210503		✓		
ES2116725-044	05-May-2021 08:22	0902_SW002_210505		✓		
ES2116725-045	05-May-2021 09:06	0902_MW023_210505		✓		
ES2116725-046	05-May-2021 08:57	0902_SW037_210505		✓		
ES2116725-049	03-May-2021 09:51	0902_QC100_210503		✓		
ES2116725-050	04-May-2021 13:19	0902_QC101_210504		✓		
ES2116725-051	05-May-2021 07:09	0902_QC300_210403		✓		
ES2116725-052	05-May-2021 07:09	0902_QC301_210504		✓		
ES2116725-053	04-May-2021 11:22	0902_MW057_210504		✓		
ES2116725-054	05-May-2021 08:28	0902_SW003_210505	✓	✓	✓	

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com

JACQUI DUNFORD

- *AU Certificate of Analysis - NATA (COA)	Email	jacqui.dunford@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jacqui.dunford@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jacqui.dunford@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	jacqui.dunford@aecom.com
- Chain of Custody (CoC) (COC)	Email	jacqui.dunford@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	jacqui.dunford@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	jacqui.dunford@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com

CHAIN OF CUSTODY

(ALS) COC#: **22352** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

Environmental Division Sydney

Work Order Reference

ES2116725

Telephone : +61-2-8784 8555

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW007_210503		03/05/2021 09:44 AM	Water	ALS: 2 Non ALS: 0	No			X		
002	0902_MW008_210503		03/05/2021 08:17 AM	Water	ALS: 2 Non ALS: 0	No			X		
003	0902_MW009_210503		03/05/2021 08:34 AM	Water	ALS: 4 Non ALS: 0	No	X				No green bottle collected, not enough water
004	0902_MW010_210503		03/05/2021 08:50 AM	Water	ALS: 2 Non ALS: 0	No			X		
005	0902_MW022_210505	Extra analysis	05/05/2021 08:49 AM	Water	ALS: 5 Non ALS: 0	No	X				
006	0902_MW024_210503		03/05/2021 11:30 AM	Water	ALS: 2 Non ALS: 0	No			X		
007	0902_MW025_210504		04/05/2021 04:31 PM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/24 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_MW028_210503		03/05/2021 11:02 AM	Water	ALS: 2 Non ALS: 0	No			X		
011	0902_MW030_210503		03/05/2021 04:02 PM	Water	ALS: 2 Non ALS: 0	No			X		
012	0902_MW040_210503		05/05/2021 07:25 AM	Water	ALS: 2 Non ALS: 0	No			X		
013	0902_MW041_210503		03/05/2021 09:01 AM	Water	ALS: 2 Non ALS: 0	No			X		
014	0902_MW042_210503		03/05/2021 09:11 AM	Water	ALS: 2 Non ALS: 0	No			X		
015	0902_MW043_210503		03/05/2021 09:22 AM	Water	ALS: 2 Non ALS: 0	No			X		
016	0902_MW046_210504		04/05/2021 03:04 PM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Sophie AS 5/5/21 1400	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0902_MW050_210503		03/05/2021 10:47 AM	Water	ALS: 2 Non ALS: 0	No			X		
020	0902_MW051_210503		03/05/2021 10:28 AM	Water	ALS: 2 Non ALS: 0	No			X		
021	0902_MW052_210503		03/05/2021 10:19 AM	Water	ALS: 2 Non ALS: 0	No			X		
022	0902_MW053_210503		03/05/2021 03:50 PM	Water	ALS: 2 Non ALS: 0	No			X		
023	0902_MW054_210504		04/05/2021 11:11 AM	Water	ALS: 2 Non ALS: 0	No			X		
024	0902_MW058_210504		04/05/2021 11:05 AM	Water	ALS: 2 Non ALS: 0	No			X		
025	0902_MW060_210504		04/05/2021 01:24 PM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
028	0902_MW063_210504		04/05/2021 03:52 PM	Water	ALS: 2 Non ALS: 0	No			X		
029	0902_MW064_210504		04/05/2021 02:22 PM	Water	ALS: 2 Non ALS: 0	No			X		
030	0902_MW065_210504		04/05/2021 01:56 PM	Water	ALS: 4 Non ALS: 0	No			X		
031	0902_MW066_210504		04/05/2021 02:08 PM	Water	ALS: 2 Non ALS: 0	No			X		
032	0902_MW068_210504		04/05/2021 04:19 PM	Water	ALS: 2 Non ALS: 0	No			X		
033	0902_MW070_210504		04/05/2021 03:31 PM	Water	ALS: 2 Non ALS: 0	No			X		
034	0902_MW071_210504		04/05/2021 03:41 PM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
037	0902_MW077_210503		03/05/2021 03:23 PM	Water	ALS: 2 Non ALS: 0	No			X		
038	0902_MW078_210503		03/05/2021 02:53 PM	Water	ALS: 2 Non ALS: 0	No			X		
039	0902_MW079_210503	Extra volume collected	03/05/2021 02:34 PM	Water	ALS: 4 Non ALS: 0	No			X		
040	0902_MW080_210503	Extra vol collected	03/05/2021 02:15 PM	Water	ALS: 4 Non ALS: 0	No			X		Extra volume collected
041	0902_MW081_210504	Extra analysis	04/05/2021 12:09 PM	Water	ALS: 2 Non ALS: 0	Yes			-		
042	0902_MW086_210503		03/05/2021 01:23 PM	Water	ALS: 2 Non ALS: 0	No			X		
043	0902_MW091_210503		03/05/2021 01:46 PM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments: 5.9

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
046	0902_SW037_210505		05/05/2021 08:57 AM	Water	ALS: 2 Non ALS: 0	No			X		
047	0902_SD002_210505	Sampled	05/05/2021 08:21 AM	Soil	ALS: 0 Non ALS: 0	No		X			
048	0902_SD003_210505	Sampled		Soil	ALS: 0 Non ALS: 0	No		X			
049	0902_QC100_210503		03/05/2021 09:51 AM	Water	ALS: 2 Non ALS: 0	No			X		
050	0902_QC101_210504		04/05/2021 01:19 PM	Water	ALS: 2 Non ALS: 0	No			X		
051	0902_QC300_210403		05/05/2021 07:09 AM	Water	ALS: 2 Non ALS: 0	No			X		
052	0902_QC301_210504		05/05/2021 07:09 AM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW007_210503	HDPE (no PTFE)	20 mL	00352010010627	Grey	No	
001	0902_MW007_210503	HDPE (no PTFE)	20 mL	00352010010533	Grey	No	
002	0902_MW008_210503	HDPE (no PTFE)	20 mL	00352010010312	Grey	No	
002	0902_MW008_210503	HDPE (no PTFE)	20 mL	00352010010697	Grey	No	
003	0902_MW009_210503	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121003318	Purple	No	
003	0902_MW009_210503	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020010906	Red	Yes	
003	0902_MW009_210503	HDPE (no PTFE)	20 mL	00352010074029	Grey	No	
003	0902_MW009_210503	HDPE (no PTFE)	20 mL	00352010074295	Grey	No	
004	0902_MW010_210503	HDPE (no PTFE)	20 mL	00352010010571	Grey	No	
004	0902_MW010_210503	HDPE (no PTFE)	20 mL	00352010010406	Grey	No	
005	0902_MW022_210505	HDPE (no PTFE)	20 mL	00352010020337	Grey	No	
005	0902_MW022_210505	HDPE (no PTFE)	20 mL	00352010020290	Grey	No	
005	0902_MW022_210505	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020010753	Red	Yes	
005	0902_MW022_210505	Clear Plastic Bottle - Natural	250 mL	00070121079318	Green	No	
005	0902_MW022_210505	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121077424	Purple	No	
006	0902_MW024_210503	HDPE (no PTFE)	20 mL	00352010073965	Grey	No	
006	0902_MW024_210503	HDPE (no PTFE)	20 mL	00352010073980	Grey	No	
007	0902_MW025_210504	HDPE (no PTFE)	20 mL	00352010020729	Grey	No	
007	0902_MW025_210504	HDPE (no PTFE)	20 mL	00352010020428	Grey	No	
008	0902_MW026_210504	HDPE (no PTFE)	20 mL	00352010020629	Grey	No	
008	0902_MW026_210504	HDPE (no PTFE)	20 mL	00352010020613	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Sophie ALS 5/5/21 1900	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

011	0902_MW030_210503	HDPE (no PTFE)	20 mL	00352010020521	Grey	No	
012	0902_MW040_210503	HDPE (no PTFE)	20 mL	00352010074046	Grey	No	
012	0902_MW040_210503	HDPE (no PTFE)	20 mL	00352010074233	Grey	No	
013	0902_MW041_210503	HDPE (no PTFE)	20 mL	00350019148798	Grey	No	
013	0902_MW041_210503	HDPE (no PTFE)	20 mL	00350019148816	Grey	No	
014	0902_MW042_210503	HDPE (no PTFE)	20 mL	00352010073809	Grey	No	
014	0902_MW042_210503	HDPE (no PTFE)	20 mL	00352010073880	Grey	No	
015	0902_MW043_210503	HDPE (no PTFE)	20 mL	00352010073991	Grey	No	
015	0902_MW043_210503	HDPE (no PTFE)	20 mL	00352010074285	Grey	No	
016	0902_MW046_210504	HDPE (no PTFE)	20 mL	00352010020245	Grey	No	
016	0902_MW046_210504	HDPE (no PTFE)	20 mL	00352010020353	Grey	No	
017	0902_MW047_210503	HDPE (no PTFE)	20 mL	00352010010175	Grey	No	
017	0902_MW047_210503	HDPE (no PTFE)	20 mL	00352010010173	Grey	No	
018	0902_MW048_210503	HDPE (no PTFE)	20 mL	00352010010440	Grey	No	
018	0902_MW048_210503	HDPE (no PTFE)	20 mL	00352010010366	Grey	No	
019	0902_MW050_210503	HDPE (no PTFE)	20 mL	00352010074287	Grey	No	
019	0902_MW050_210503	HDPE (no PTFE)	20 mL	00352010074028	Grey	No	
020	0902_MW051_210503	HDPE (no PTFE)	20 mL	00352010072233	Grey	No	
020	0902_MW051_210503	HDPE (no PTFE)	20 mL	00352010072268	Grey	No	
021	0902_MW052_210503	HDPE (no PTFE)	20 mL	00352010074106	Grey	No	
021	0902_MW052_210503	HDPE (no PTFE)	20 mL	00352010073924	Grey	No	
022	0902_MW053_210503	HDPE (no PTFE)	20 mL	00352010020190	Grey	No	
022	0902_MW053_210503	HDPE (no PTFE)	20 mL	00352010020488	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal Intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

025	0902_MW060_210504	HDPE (no PTFE)	20 mL	00352010020372	Grey	No	
025	0902_MW060_210504	HDPE (no PTFE)	20 mL	00352010020326	Grey	No	
026	0902_MW061_210504	HDPE (no PTFE)	20 mL	00352010020159	Grey	No	
026	0902_MW061_210504	HDPE (no PTFE)	20 mL	00352010020424	Grey	No	
027	0902_MW062_210504	HDPE (no PTFE)	20 mL	00352010020490	Grey	No	
027	0902_MW062_210504	HDPE (no PTFE)	20 mL	00352010020271	Grey	No	
027	0902_MW062_210504	HDPE (no PTFE)	20 mL	00352010020273	Grey	No	
027	0902_MW062_210504	HDPE (no PTFE)	20 mL	00352010020347	Grey	No	
028	0902_MW063_210504	HDPE (no PTFE)	20 mL	00352010020263	Grey	No	
028	0902_MW063_210504	HDPE (no PTFE)	20 mL	00352010020312	Grey	No	
029	0902_MW064_210504	HDPE (no PTFE)	20 mL	00352010020280	Grey	No	
029	0902_MW064_210504	HDPE (no PTFE)	20 mL	00352010020154	Grey	No	
030	0902_MW065_210504	HDPE (no PTFE)	20 mL	00352010020749	Grey	No	
030	0902_MW065_210504	HDPE (no PTFE)	20 mL	00352010020499	Grey	No	
030	0902_MW065_210504	HDPE (no PTFE)	20 mL	00352010020657	Grey	No	
030	0902_MW065_210504	HDPE (no PTFE)	20 mL	00352010020425	Grey	No	
031	0902_MW066_210504	HDPE (no PTFE)	20 mL	00352010020508	Grey	No	
031	0902_MW066_210504	HDPE (no PTFE)	20 mL	00352010020435	Grey	No	
032	0902_MW068_210504	HDPE (no PTFE)	20 mL	00352010020253	Grey	No	
032	0902_MW068_210504	HDPE (no PTFE)	20 mL	00352010020236	Grey	No	
033	0902_MW070_210504	HDPE (no PTFE)	20 mL	00352010020523	Grey	No	
033	0902_MW070_210504	HDPE (no PTFE)	20 mL	00352010020513	Grey	No	
034	0902_MW071_210504	HDPE (no PTFE)	20 mL	00352010020599	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.7 °C

Other comments:

035	0902_MW075_210504	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020010806	Red	Yes	
035	0902_MW075_210504	Clear Plastic Bottle - Natural	250 mL	00070121079345	Green	No	
036	0902_MW076_210503	HDPE (no PTFE)	20 mL	00352010020164	Grey	No	
036	0902_MW076_210503	HDPE (no PTFE)	20 mL	00352010020658	Grey	No	
037	0902_MW077_210503	HDPE (no PTFE)	20 mL	00352010020176	Grey	No	
037	0902_MW077_210503	HDPE (no PTFE)	20 mL	00352010020660	Grey	No	
038	0902_MW078_210503	HDPE (no PTFE)	20 mL	00352010020445	Grey	No	
038	0902_MW078_210503	HDPE (no PTFE)	20 mL	00352010020183	Grey	No	
039	0902_MW079_210503	HDPE (no PTFE)	20 mL	00352010020668	Grey	No	
039	0902_MW079_210503	HDPE (no PTFE)	20 mL	00352010020549	Grey	No	
039	0902_MW079_210503	HDPE (no PTFE)	20 mL	00352010020193	Grey	No	
039	0902_MW079_210503	HDPE (no PTFE)	20 mL	00352010020181	Grey	No	
040	0902_MW080_210503	HDPE (no PTFE)	20 mL	00352010010664	Grey	No	
040	0902_MW080_210503	HDPE (no PTFE)	20 mL	00352010020269	Grey	No	
040	0902_MW080_210503	HDPE (no PTFE)	20 mL	00352010010671	Grey	No	
040	0902_MW080_210503	HDPE (no PTFE)	20 mL	00352010020174	Grey	No	
041	0902_MW081_210504	HDPE (no PTFE)	20 mL	00352010020394	Grey	No	
041	0902_MW081_210504	HDPE (no PTFE)	20 mL	00352010020529	Grey	No	
042	0902_MW086_210503	HDPE (no PTFE)	20 mL	00352010073836	Grey	No	
042	0902_MW086_210503	HDPE (no PTFE)	20 mL	00352010073861	Grey	No	
043	0902_MW091_210503	HDPE (no PTFE)	20 mL	00352010010214	Grey	No	
043	0902_MW091_210503	HDPE (no PTFE)	20 mL	00352010010232	Grey	No	
044	0902_SW002_210505	HDPE (no PTFE)	20 mL	00352010020486	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

046	0902_SW037_210505	HDPE (no PTFE)	20 mL	00352010020566	Grey	No	
049	0902_QC100_210503	HDPE (no PTFE)	20 mL	00352010073856	Grey	No	
049	0902_QC100_210503	HDPE (no PTFE)	20 mL	00352010073997	Grey	No	
050	0902_QC101_210504	HDPE (no PTFE)	20 mL	00352010020301	Grey	No	
050	0902_QC101_210504	HDPE (no PTFE)	20 mL	00352010020579	Grey	No	
051	0902_QC300_210403	HDPE (no PTFE)	20 mL	00352010020382	Grey	No	
051	0902_QC300_210403	HDPE (no PTFE)	20 mL	00352010020621	Grey	No	
052	0902_QC301_210504	HDPE (no PTFE)	20 mL	00352010020540	Grey	No	
052	0902_QC301_210504	HDPE (no PTFE)	20 mL	00352010020463	Grey	No	
053	0902_MW057_210504	HDPE (no PTFE)	20 mL	00352010020172	Grey	No	
053	0902_MW057_210504	HDPE (no PTFE)	20 mL	00352010020203	Grey	No	
054	0902_SW003_210505	HDPE (no PTFE)	20 mL	00352010020593	Grey	No	
054	0902_SW003_210505	HDPE (no PTFE)	20 mL	00352010020396	Grey	No	
054	0902_SW003_210505	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121077239	Purple	No	
054	0902_SW003_210505	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020011507	Red	Yes	
054	0902_SW003_210505	Clear Plastic Bottle - Natural	250 mL	00070121079322	Green	No	

Total Bottle Count: ALS: 123, Non ALS: 0

Fadi Soro

From: Angus Harding
Sent: Wednesday, 5 May 2021 11:03 AM
To: Fadi Soro
Cc: Helen Simpson; Wael Saleh; Christopher Redford
Subject: FW: [EXTERNAL] - Incoming batches with a short holding time

Hi Fadi,

We will have 2 Compass batches coming in via courier today:

22352 – 54 samples
22332 – 4 samples

A few notes for SR:

- Please be aware that both of these batches have samples for Nitrites and Nitrates which have a short holding time
- The TAT for these batches is standard time (5 days)
- The sediment bottles not scanned, filled out the containers manually, so although the app has these as not collected
- 2 samples on hold
- Upon arrival please let me know what bottles have been received for these two samples.
  - 0902_MW081_210304
  - 0902_SW023_210304
- For sample 0902_MW009_210303 there may be limited volume. PFAS has been prioritised, with metals collected, hopefully it will be enough.

Please let me know if there are any issues or questions.

Kind Regards,

Angus Harding

T +61 2 8784 8555
F +61 2 8784 8500
D +61 2 8784 8503
angus.harding@alsglobal.com
277-289 Woodpark Road
Smithfield NSW 2164 AUSTRALIA

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EnviroMail™ 127 – Bacterial Diversity Profiling in NGS
EnviroMail™ 128 – Revised PFAS Bottle Requirements

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www.alsglobal.com

From: Jenkins, Mat [mailto:mat.jenkins@aecom.com]
Sent: Wednesday, 5 May 2021 10:45 AM
To: Christopher Redford <christopher.redford@ALSGlobal.com>; Angus Harding <angus.harding@ALSGlobal.com>; ALSEnviro Sydney <ALSEnviro.Sydney@ALSGlobal.com>
Cc: Tredinnick, Geoffrey A <Geoff.Tredinnick@aecom.com>; Yerdhalli, Prerana <Prerana.yerdhalli@aecom.com>; Wathen, Kurtis <Kurtis.Wathen@aecom.com>
Subject: [EXTERNAL] - Incoming batches with a short holding time

CAUTION: This email originated from outside of ALS. Do not click links or open attachments unless you recognize the sender and are sure content is relevant to you.

Hey Team,

We have two batches coming in today, for project NSW_0902_PFASOMP (not PFASMGMT), which has just been picked up by the courier. Please ensure these remain separate workorders.

These are for ALS compass COC

22352 – 54 samples

I have placed the below two samples on hold, I will let you know whether we would like these analysed for PFAS full suite. Upon arrival please let me know what bottles have been received for these two samples.

0902_MW081_210304
0902_SW023_210304

For sample 0902_MW009_210303 I do not believe that there was sufficient water to collect all requested analysis from the COC. PFAS has been prioritised, with metals collected, hopefully it will be enough.

Cheers, and let me know if any issues

Mat Jenkins
Graduate Data Scientist
D +61 2 8934 0379
Mat.Jenkins@aecom.com

AECOM
Level 21, 420 George Street, Sydney, NSW 2000
PO Box Q410, QVB PO, Sydney, NSW, 1230
T +61 2 8934 0000 F +61 2 8934 0001
www.aecom.com

Please consider the environment before printing this email.

CHAIN OF CUSTODY

(ALS) COC#: **22352** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

Environmental Division Sydney

Work Order Reference

ES2116725

Telephone : +61-2-8784 8555

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW007_210503		03/05/2021 09:44 AM	Water	ALS: 2 Non ALS: 0	No			X		
002	0902_MW008_210503		03/05/2021 08:17 AM	Water	ALS: 2 Non ALS: 0	No			X		
003	0902_MW009_210503		03/05/2021 08:34 AM	Water	ALS: 4 Non ALS: 0	No	X				No green bottle collected, not enough water
004	0902_MW010_210503		03/05/2021 08:50 AM	Water	ALS: 2 Non ALS: 0	No			X		
005	0902_MW022_210505	Extra analysis	05/05/2021 08:49 AM	Water	ALS: 5 Non ALS: 0	No	X				
006	0902_MW024_210503		03/05/2021 11:30 AM	Water	ALS: 2 Non ALS: 0	No			X		
007	0902_MW025_210504		04/05/2021 04:31 PM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/24 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_MW028_210503		03/05/2021 11:02 AM	Water	ALS: 2 Non ALS: 0	No			X		
011	0902_MW030_210503		03/05/2021 04:02 PM	Water	ALS: 2 Non ALS: 0	No			X		
012	0902_MW040_210503		05/05/2021 07:25 AM	Water	ALS: 2 Non ALS: 0	No			X		
013	0902_MW041_210503		03/05/2021 09:01 AM	Water	ALS: 2 Non ALS: 0	No			X		
014	0902_MW042_210503		03/05/2021 09:11 AM	Water	ALS: 2 Non ALS: 0	No			X		
015	0902_MW043_210503		03/05/2021 09:22 AM	Water	ALS: 2 Non ALS: 0	No			X		
016	0902_MW046_210504		04/05/2021 03:04 PM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Sophie AS 5/5/21 1400	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0902_MW050_210503		03/05/2021 10:47 AM	Water	ALS: 2 Non ALS: 0	No			X		
020	0902_MW051_210503		03/05/2021 10:28 AM	Water	ALS: 2 Non ALS: 0	No			X		
021	0902_MW052_210503		03/05/2021 10:19 AM	Water	ALS: 2 Non ALS: 0	No			X		
022	0902_MW053_210503		03/05/2021 03:50 PM	Water	ALS: 2 Non ALS: 0	No			X		
023	0902_MW054_210504		04/05/2021 11:11 AM	Water	ALS: 2 Non ALS: 0	No			X		
024	0902_MW058_210504		04/05/2021 11:05 AM	Water	ALS: 2 Non ALS: 0	No			X		
025	0902_MW060_210504		04/05/2021 01:24 PM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
028	0902_MW063_210504		04/05/2021 03:52 PM	Water	ALS: 2 Non ALS: 0	No			X		
029	0902_MW064_210504		04/05/2021 02:22 PM	Water	ALS: 2 Non ALS: 0	No			X		
030	0902_MW065_210504		04/05/2021 01:56 PM	Water	ALS: 4 Non ALS: 0	No			X		
031	0902_MW066_210504		04/05/2021 02:08 PM	Water	ALS: 2 Non ALS: 0	No			X		
032	0902_MW068_210504		04/05/2021 04:19 PM	Water	ALS: 2 Non ALS: 0	No			X		
033	0902_MW070_210504		04/05/2021 03:31 PM	Water	ALS: 2 Non ALS: 0	No			X		
034	0902_MW071_210504		04/05/2021 03:41 PM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

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EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
037	0902_MW077_210503		03/05/2021 03:23 PM	Water	ALS: 2 Non ALS: 0	No			X		
038	0902_MW078_210503		03/05/2021 02:53 PM	Water	ALS: 2 Non ALS: 0	No			X		
039	0902_MW079_210503	Extra volume collected	03/05/2021 02:34 PM	Water	ALS: 4 Non ALS: 0	No			X		
040	0902_MW080_210503	Extra vol collected	03/05/2021 02:15 PM	Water	ALS: 4 Non ALS: 0	No			X		Extra volume collected
041	0902_MW081_210504	Extra analysis	04/05/2021 12:09 PM	Water	ALS: 2 Non ALS: 0	Yes			-		
042	0902_MW086_210503		03/05/2021 01:23 PM	Water	ALS: 2 Non ALS: 0	No			X		
043	0902_MW091_210503		03/05/2021 01:46 PM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments: 5.9

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
046	0902_SW037_210505		05/05/2021 08:57 AM	Water	ALS: 2 Non ALS: 0	No			X		
047	0902_SD002_210505	Sampled	05/05/2021 08:21 AM	Soil	ALS: 0 Non ALS: 0	No		X			
048	0902_SD003_210505	Sampled		Soil	ALS: 0 Non ALS: 0	No		X			
049	0902_QC100_210503		03/05/2021 09:51 AM	Water	ALS: 2 Non ALS: 0	No			X		
050	0902_QC101_210504		04/05/2021 01:19 PM	Water	ALS: 2 Non ALS: 0	No			X		
051	0902_QC300_210403		05/05/2021 07:09 AM	Water	ALS: 2 Non ALS: 0	No			X		
052	0902_QC301_210504		05/05/2021 07:09 AM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW007_210503	HDPE (no PTFE)	20 mL	00352010010627	Grey	No	
001	0902_MW007_210503	HDPE (no PTFE)	20 mL	00352010010533	Grey	No	
002	0902_MW008_210503	HDPE (no PTFE)	20 mL	00352010010312	Grey	No	
002	0902_MW008_210503	HDPE (no PTFE)	20 mL	00352010010697	Grey	No	
003	0902_MW009_210503	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121003318	Purple	No	
003	0902_MW009_210503	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020010906	Red	Yes	
003	0902_MW009_210503	HDPE (no PTFE)	20 mL	00352010074029	Grey	No	
003	0902_MW009_210503	HDPE (no PTFE)	20 mL	00352010074295	Grey	No	
004	0902_MW010_210503	HDPE (no PTFE)	20 mL	00352010010571	Grey	No	
004	0902_MW010_210503	HDPE (no PTFE)	20 mL	00352010010406	Grey	No	
005	0902_MW022_210505	HDPE (no PTFE)	20 mL	00352010020337	Grey	No	
005	0902_MW022_210505	HDPE (no PTFE)	20 mL	00352010020290	Grey	No	
005	0902_MW022_210505	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020010753	Red	Yes	
005	0902_MW022_210505	Clear Plastic Bottle - Natural	250 mL	00070121079318	Green	No	
005	0902_MW022_210505	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121077424	Purple	No	
006	0902_MW024_210503	HDPE (no PTFE)	20 mL	00352010073965	Grey	No	
006	0902_MW024_210503	HDPE (no PTFE)	20 mL	00352010073980	Grey	No	
007	0902_MW025_210504	HDPE (no PTFE)	20 mL	00352010020729	Grey	No	
007	0902_MW025_210504	HDPE (no PTFE)	20 mL	00352010020428	Grey	No	
008	0902_MW026_210504	HDPE (no PTFE)	20 mL	00352010020629	Grey	No	
008	0902_MW026_210504	HDPE (no PTFE)	20 mL	00352010020613	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Sophie ALS 5/5/21 1900	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

011	0902_MW030_210503	HDPE (no PTFE)	20 mL	00352010020521	Grey	No	
012	0902_MW040_210503	HDPE (no PTFE)	20 mL	00352010074046	Grey	No	
012	0902_MW040_210503	HDPE (no PTFE)	20 mL	00352010074233	Grey	No	
013	0902_MW041_210503	HDPE (no PTFE)	20 mL	00350019148798	Grey	No	
013	0902_MW041_210503	HDPE (no PTFE)	20 mL	00350019148816	Grey	No	
014	0902_MW042_210503	HDPE (no PTFE)	20 mL	00352010073809	Grey	No	
014	0902_MW042_210503	HDPE (no PTFE)	20 mL	00352010073880	Grey	No	
015	0902_MW043_210503	HDPE (no PTFE)	20 mL	00352010073991	Grey	No	
015	0902_MW043_210503	HDPE (no PTFE)	20 mL	00352010074285	Grey	No	
016	0902_MW046_210504	HDPE (no PTFE)	20 mL	00352010020245	Grey	No	
016	0902_MW046_210504	HDPE (no PTFE)	20 mL	00352010020353	Grey	No	
017	0902_MW047_210503	HDPE (no PTFE)	20 mL	00352010010175	Grey	No	
017	0902_MW047_210503	HDPE (no PTFE)	20 mL	00352010010173	Grey	No	
018	0902_MW048_210503	HDPE (no PTFE)	20 mL	00352010010440	Grey	No	
018	0902_MW048_210503	HDPE (no PTFE)	20 mL	00352010010366	Grey	No	
019	0902_MW050_210503	HDPE (no PTFE)	20 mL	00352010074287	Grey	No	
019	0902_MW050_210503	HDPE (no PTFE)	20 mL	00352010074028	Grey	No	
020	0902_MW051_210503	HDPE (no PTFE)	20 mL	00352010072233	Grey	No	
020	0902_MW051_210503	HDPE (no PTFE)	20 mL	00352010072268	Grey	No	
021	0902_MW052_210503	HDPE (no PTFE)	20 mL	00352010074106	Grey	No	
021	0902_MW052_210503	HDPE (no PTFE)	20 mL	00352010073924	Grey	No	
022	0902_MW053_210503	HDPE (no PTFE)	20 mL	00352010020190	Grey	No	
022	0902_MW053_210503	HDPE (no PTFE)	20 mL	00352010020488	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal Intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

025	0902_MW060_210504	HDPE (no PTFE)	20 mL	00352010020372	Grey	No	
025	0902_MW060_210504	HDPE (no PTFE)	20 mL	00352010020326	Grey	No	
026	0902_MW061_210504	HDPE (no PTFE)	20 mL	00352010020159	Grey	No	
026	0902_MW061_210504	HDPE (no PTFE)	20 mL	00352010020424	Grey	No	
027	0902_MW062_210504	HDPE (no PTFE)	20 mL	00352010020490	Grey	No	
027	0902_MW062_210504	HDPE (no PTFE)	20 mL	00352010020271	Grey	No	
027	0902_MW062_210504	HDPE (no PTFE)	20 mL	00352010020273	Grey	No	
027	0902_MW062_210504	HDPE (no PTFE)	20 mL	00352010020347	Grey	No	
028	0902_MW063_210504	HDPE (no PTFE)	20 mL	00352010020263	Grey	No	
028	0902_MW063_210504	HDPE (no PTFE)	20 mL	00352010020312	Grey	No	
029	0902_MW064_210504	HDPE (no PTFE)	20 mL	00352010020280	Grey	No	
029	0902_MW064_210504	HDPE (no PTFE)	20 mL	00352010020154	Grey	No	
030	0902_MW065_210504	HDPE (no PTFE)	20 mL	00352010020749	Grey	No	
030	0902_MW065_210504	HDPE (no PTFE)	20 mL	00352010020499	Grey	No	
030	0902_MW065_210504	HDPE (no PTFE)	20 mL	00352010020657	Grey	No	
030	0902_MW065_210504	HDPE (no PTFE)	20 mL	00352010020425	Grey	No	
031	0902_MW066_210504	HDPE (no PTFE)	20 mL	00352010020508	Grey	No	
031	0902_MW066_210504	HDPE (no PTFE)	20 mL	00352010020435	Grey	No	
032	0902_MW068_210504	HDPE (no PTFE)	20 mL	00352010020253	Grey	No	
032	0902_MW068_210504	HDPE (no PTFE)	20 mL	00352010020236	Grey	No	
033	0902_MW070_210504	HDPE (no PTFE)	20 mL	00352010020523	Grey	No	
033	0902_MW070_210504	HDPE (no PTFE)	20 mL	00352010020513	Grey	No	
034	0902_MW071_210504	HDPE (no PTFE)	20 mL	00352010020599	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

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RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.7 °C

Other comments:

035	0902_MW075_210504	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020010806	Red	Yes	
035	0902_MW075_210504	Clear Plastic Bottle - Natural	250 mL	00070121079345	Green	No	
036	0902_MW076_210503	HDPE (no PTFE)	20 mL	00352010020164	Grey	No	
036	0902_MW076_210503	HDPE (no PTFE)	20 mL	00352010020658	Grey	No	
037	0902_MW077_210503	HDPE (no PTFE)	20 mL	00352010020176	Grey	No	
037	0902_MW077_210503	HDPE (no PTFE)	20 mL	00352010020660	Grey	No	
038	0902_MW078_210503	HDPE (no PTFE)	20 mL	00352010020445	Grey	No	
038	0902_MW078_210503	HDPE (no PTFE)	20 mL	00352010020183	Grey	No	
039	0902_MW079_210503	HDPE (no PTFE)	20 mL	00352010020668	Grey	No	
039	0902_MW079_210503	HDPE (no PTFE)	20 mL	00352010020549	Grey	No	
039	0902_MW079_210503	HDPE (no PTFE)	20 mL	00352010020193	Grey	No	
039	0902_MW079_210503	HDPE (no PTFE)	20 mL	00352010020181	Grey	No	
040	0902_MW080_210503	HDPE (no PTFE)	20 mL	00352010010664	Grey	No	
040	0902_MW080_210503	HDPE (no PTFE)	20 mL	00352010020269	Grey	No	
040	0902_MW080_210503	HDPE (no PTFE)	20 mL	00352010010671	Grey	No	
040	0902_MW080_210503	HDPE (no PTFE)	20 mL	00352010020174	Grey	No	
041	0902_MW081_210504	HDPE (no PTFE)	20 mL	00352010020394	Grey	No	
041	0902_MW081_210504	HDPE (no PTFE)	20 mL	00352010020529	Grey	No	
042	0902_MW086_210503	HDPE (no PTFE)	20 mL	00352010073836	Grey	No	
042	0902_MW086_210503	HDPE (no PTFE)	20 mL	00352010073861	Grey	No	
043	0902_MW091_210503	HDPE (no PTFE)	20 mL	00352010010214	Grey	No	
043	0902_MW091_210503	HDPE (no PTFE)	20 mL	00352010010232	Grey	No	
044	0902_SW002_210505	HDPE (no PTFE)	20 mL	00352010020486	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 22352 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 5/5/2021

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

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RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1400	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.9 °C

Other comments:

046	0902_SW037_210505	HDPE (no PTFE)	20 mL	00352010020566	Grey	No	
049	0902_QC100_210503	HDPE (no PTFE)	20 mL	00352010073856	Grey	No	
049	0902_QC100_210503	HDPE (no PTFE)	20 mL	00352010073997	Grey	No	
050	0902_QC101_210504	HDPE (no PTFE)	20 mL	00352010020301	Grey	No	
050	0902_QC101_210504	HDPE (no PTFE)	20 mL	00352010020579	Grey	No	
051	0902_QC300_210403	HDPE (no PTFE)	20 mL	00352010020382	Grey	No	
051	0902_QC300_210403	HDPE (no PTFE)	20 mL	00352010020621	Grey	No	
052	0902_QC301_210504	HDPE (no PTFE)	20 mL	00352010020540	Grey	No	
052	0902_QC301_210504	HDPE (no PTFE)	20 mL	00352010020463	Grey	No	
053	0902_MW057_210504	HDPE (no PTFE)	20 mL	00352010020172	Grey	No	
053	0902_MW057_210504	HDPE (no PTFE)	20 mL	00352010020203	Grey	No	
054	0902_SW003_210505	HDPE (no PTFE)	20 mL	00352010020593	Grey	No	
054	0902_SW003_210505	HDPE (no PTFE)	20 mL	00352010020396	Grey	No	
054	0902_SW003_210505	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121077239	Purple	No	
054	0902_SW003_210505	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020011507	Red	Yes	
054	0902_SW003_210505	Clear Plastic Bottle - Natural	250 mL	00070121079322	Green	No	

Total Bottle Count: ALS: 123, Non ALS: 0

Fadi Soro

From: Angus Harding
Sent: Wednesday, 5 May 2021 11:03 AM
To: Fadi Soro
Cc: Helen Simpson; Wael Saleh; Christopher Redford
Subject: FW: [EXTERNAL] - Incoming batches with a short holding time

Hi Fadi,

We will have 2 Compass batches coming in via courier today:

22352 – 54 samples
22332 – 4 samples

A few notes for SR:

- Please be aware that both of these batches have samples for Nitrites and Nitrates which have a short holding time
- The TAT for these batches is standard time (5 days)
- The sediment bottles not scanned, filled out the containers manually, so although the app has these as not collected
- 2 samples on hold
- Upon arrival please let me know what bottles have been received for these two samples.
  - 0902_MW081_210304
  - 0902_SW023_210304
- For sample 0902_MW009_210303 there may be limited volume. PFAS has been prioritised, with metals collected, hopefully it will be enough.

Please let me know if there are any issues or questions.

Kind Regards,

Angus Harding

T +61 2 8784 8555
F +61 2 8784 8500
D +61 2 8784 8503
angus.harding@alsglobal.com
277-289 Woodpark Road
Smithfield NSW 2164 AUSTRALIA

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EnviroMail™ 128 – Revised PFAS Bottle Requirements

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From: Jenkins, Mat [mailto:mat.jenkins@aecom.com]
Sent: Wednesday, 5 May 2021 10:45 AM
To: Christopher Redford <christopher.redford@ALSGlobal.com>; Angus Harding <angus.harding@ALSGlobal.com>; ALSEnviro Sydney <ALSEnviro.Sydney@ALSGlobal.com>
Cc: Tredinnick, Geoffrey A <Geoff.Tredinnick@aecom.com>; Yerdhalli, Prerana <Prerana.yerdhalli@aecom.com>; Wathen, Kurtis <Kurtis.Wathen@aecom.com>
Subject: [EXTERNAL] - Incoming batches with a short holding time

CAUTION: This email originated from outside of ALS. Do not click links or open attachments unless you recognize the sender and are sure content is relevant to you.

Hey Team,

We have two batches coming in today, for project NSW_0902_PFASOMP (not PFASMGMT), which has just been picked up by the courier. Please ensure these remain separate workorders.

These are for ALS compass COC

22352 – 54 samples

I have placed the below two samples on hold, I will let you know whether we would like these analysed for PFAS full suite. Upon arrival please let me know what bottles have been received for these two samples.

0902_MW081_210304
0902_SW023_210304

For sample 0902_MW009_210303 I do not believe that there was sufficient water to collect all requested analysis from the COC. PFAS has been prioritised, with metals collected, hopefully it will be enough.

Cheers, and let me know if any issues

Mat Jenkins
Graduate Data Scientist
D +61 2 8934 0379
Mat.Jenkins@aecom.com

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ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2116725**	Page	: 1 of 15
Amendment	: **1**		
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 05-May-2021
Order number	: 5.1	Date Analysis Commenced	: 05-May-2021
C-O-C number	: 22352	Issue Date	: 20-May-2021
Sampler	: MAT JENKINS, PRERANA YERDHALLI		
Site	: 5/5/2021		
Quote number	: SY/139/19 v4_NSW_0902_PFASOMP		
No. of samples received	: 55		
No. of samples analysed	: 55		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Pabi Subba	Senior Organic Chemist	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 3669402)									
ES2116725-047	0902_SD002_210505	EA055: Moisture Content	----	0.1	%	52.7	53.4	1.4	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 3670279)									
ES2116479-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	0.0023	0.0026	9.8	0% - 50%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0146	0.0170	15.7	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2116512-006	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0186	0.0171	8.5	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3670279)									
ES2116479-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3670279) - continued									
ES2116479-001	Anonymous	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2116512-006	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	0.0046	0.0040	14.3	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0037	0.0040	8.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	0.0034	0.0030	9.5	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0062	<0.0062	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.012	<0.012	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3670279)									
ES2116479-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2116512-006	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0062	<0.0062	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0062	<0.0062	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0062	<0.0062	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0062	<0.0062	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3670279)									

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3670279) - continued									
ES2116479-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	0.0050	0.0054	7.2	0% - 50%
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2116512-006	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0025	<0.0025	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0025	<0.0025	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020T: Total Metals by ICP-MS (QC Lot: 3666546)									
ES2116605-007	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	0.004	0.005	31.7	No Limit
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-T: Iron	7439-89-6	0.05	mg/L	0.05	0.04	0.0	No Limit
ES2116687-003	Anonymous	EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	0.0	No Limit
ES2116687-003	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.03	89.6	No Limit
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 3667271)									
ES2116666-012	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	14.2	14.2	0.0	0% - 20%
EW2102012-002	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.04	0.04	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3660834)									
ES2116677-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<1.00	<1.00	0.00	No Limit
ES2116810-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.00	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 3667270)									
ES2116725-003	0902_MW009_210503	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	1.25	1.24	0.0	0% - 20%
ES2116666-012	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.26	0.27	0.0	0% - 20%
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 3667266)									
ES2116666-011	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	3.0	3.0	0.0	0% - 20%
ES2116725-005	0902_MW022_210505	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	3.1	3.0	0.0	0% - 20%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 3667267)									
ES2116666-011	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	1.34	1.34	0.0	0% - 20%

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 3667267) - continued									
ES2116725-005	0902_MW022_210505	EK067G: Total Phosphorus as P	----	0.01	mg/L	1.07	1.06	0.0	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 3672430)									
ES2116725-011	0902_MW030_210503	EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	1.07	1.19	10.4	0% - 20%
		EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.28	0.28	0.0	0% - 50%
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.27	0.30	10.8	0% - 50%
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	1.84	1.94	5.6	0% - 20%
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.07	0.08	0.0	No Limit
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3672430)									
ES2116725-011	0902_MW030_210503	EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.11	0.11	0.0	0% - 50%
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.06	0.06	0.0	No Limit
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.30	0.32	3.6	0% - 50%
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.06	0.07	0.0	No Limit
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	<0.10	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3672430)									
ES2116725-011	0902_MW030_210503	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3672430) - continued									
ES2116725-011	0902_MW030_210503	EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3672430)									
ES2116725-011	0902_MW030_210503	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 3672430)									
ES2116725-011	0902_MW030_210503	EP231X-INJ: Sum of PFAS	----	0.01	µg/L	4.06	4.35	6.9	0% - 20%
		EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	2.91	3.13	7.3	0% - 20%
		EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	3.72	3.97	6.5	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3670279)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	78.4	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	72.0	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.6	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.0	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	115	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3670279)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	85.5	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.6	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.6	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.0	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.0	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.8	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	91.5	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3670279)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	96.6	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	93.3	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	90.2	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	110	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.4	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.0	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3670279)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	87.6	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	96.8	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	81.2	65.0	137

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3670279) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	98.0	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG020T: Total Metals by ICP-MS (QCLot: 3666546)								
EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	93.3	82.0	120
EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	87.4	85.0	113
EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	110	85.0	117
EK055G: Ammonia as N by Discrete Analyser (QCLot: 3667271)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	109	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 3660834)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	102	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3667270)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	103	91.0	113
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3667266)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	10 mg/L	84.5	69.0	101
				<0.1	1 mg/L	85.3	70.0	118
				<0.1	5 mg/L	93.8	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3667267)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	90.7	71.0	101
				<0.01	0.442 mg/L	101	72.0	108
				<0.01	1 mg/L	107	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3670960)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	93.0	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	98.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	0.25 µg/L	95.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	95.0	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	72.8	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	95.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3671250)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	112	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	0.25 µg/L	104	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	109	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	90.8	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	113	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3671257)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3671257) - continued								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	110	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	0.25 µg/L	102	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	109	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	91.2	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	115	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3672430)								
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.5 µg/L	81.2	72.0	130
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.5 µg/L	88.0	71.0	127
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	0.5 µg/L	83.8	68.0	131
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.5 µg/L	89.0	69.0	134
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.5 µg/L	89.0	65.0	140
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.5 µg/L	81.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3670960)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	86.7	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	111	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	101	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	111	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	113	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	101	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	114	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3671250)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	102	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	119	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	114	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	117	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	120	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	117	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	119	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	121	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	117	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	106	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	113	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3671257)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3671257) - continued								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	112	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	117	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	119	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	119	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	116	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	124	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	121	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	96.6	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	112	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	114	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3672430)								
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	87.4	73.0	129
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	94.8	72.0	129
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	97.2	72.0	129
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	95.2	72.0	130
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	91.6	71.0	133
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	92.0	69.0	130
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	95.0	71.0	129
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	90.6	69.0	133
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	91.2	72.0	134
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	89.8	65.0	144
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	100	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3670960)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	99.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	99.6	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	83.8	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	93.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	90.9	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	98.4	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3671250)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	112	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	122	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	121	62.6	147

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3671250) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	112	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	118	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	116	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	116	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3671257)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	108	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	110	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	101	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	90.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	97.8	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	106	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	114	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3672430)								
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	93.0	67.0	137
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	101	68.0	141
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	102	68.4	127
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	95.8	64.4	132
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	93.4	60.2	125
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	97.2	65.0	136
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	89.6	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3670960)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	103	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	88.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	104	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	85.8	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3671250)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3671250) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	115	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	111	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	118	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	105	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3671257)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	108	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	114	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	119	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	112	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3672430)								
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.5 µg/L	95.8	63.0	143
EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.5 µg/L	92.0	64.0	140
EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.5 µg/L	92.0	67.0	138
EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.5 µg/L	92.0	62.7	135
EP231P: PFAS Sums (QCLot: 3672430)								
EP231X-INJ: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
				Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3670279)							
ES2116479-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	91.2	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	90.4	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	69.6	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	96.0	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	# Not Determined	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	80.4	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3670279)							
ES2116479-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	74.3	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	81.6	69.0	132

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3670279) - continued							
ES2116479-001	Anonymous	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	76.8	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	78.4	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	83.6	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	81.6	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	83.6	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	81.6	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	84.8	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	79.2	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	77.1	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3670279)							
ES2116479-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	84.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	80.0	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	85.9	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	85.7	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	89.9	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	83.2	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	76.4	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3670279)							
ES2116479-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	81.2	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	125	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	88.4	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	122	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EG020T: Total Metals by ICP-MS (QCLot: 3666546)							
ES2116635-001	Anonymous	EG020A-T: Manganese	7439-96-5	1 mg/L	94.5	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 3667271)							
ES2116666-012	Anonymous	EK055G: Ammonia as N	7664-41-7	1 mg/L	# Not Determined	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 3660834)							
ES2116677-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	108	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3667270)							
ES2116666-012	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	71.1	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3667266)							
ES2116666-012	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	# Not Determined	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3667267)							
ES2116666-012	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	# Not Determined	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3672430)							
ES2116725-011	0902_MW030_210503	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.5 µg/L	82.6	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.5 µg/L	83.0	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.5 µg/L	111	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.5 µg/L	89.0	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.5 µg/L	124	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.5 µg/L	90.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3672430)							
ES2116725-011	0902_MW030_210503	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	94.6	73.0	129
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	95.4	72.0	129
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	102	72.0	129
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	90.0	72.0	130
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	90.6	71.0	133
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	89.0	69.0	130
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	91.8	71.0	129
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.5 µg/L	98.4	69.0	133
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.5 µg/L	87.4	72.0	134
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.5 µg/L	92.0	65.0	144
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	99.4	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3672430)							
ES2116725-011	0902_MW030_210503	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	92.2	67.0	137
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	100	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	97.1	68.5	127
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	97.8	64.4	132
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	89.3	60.2	125
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	88.2	65.0	136

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3672430) - continued							
ES2116725-011	0902_MW030_210503	EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	86.4	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3672430)							
ES2116725-011	0902_MW030_210503	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.5 µg/L	91.2	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.5 µg/L	99.4	64.0	140
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.5 µg/L	109	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.5 µg/L	92.8	62.7	135

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2116725**	Page	: 1 of 13
Amendment	: **1**		
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 05-May-2021
Site	: 5/5/2021	Issue Date	: 20-May-2021
Sampler	: MAT JENKINS, PRERANA YERDHALLI	No. of samples received	: 55
Order number	: 5.1	No. of samples analysed	: 55

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2116479--001	Anonymous	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EK055G: Ammonia as N by Discrete Analyser	ES2116666--012	Anonymous	**Ammonia as N**	7664-41-7	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser	ES2116666--012	Anonymous	**Total Kjeldahl Nitrogen as N**	----	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EK067G: Total Phosphorus as P by Discrete Analyser	ES2116666--012	Anonymous	**Total Phosphorus as P**	----	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Method	Count QC	Count Regular	Rate (%) Actual	Rate (%) Expected	Quality Control Specification
Laboratory Duplicates (DUP)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	0	57	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	0	57	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container* / Client Sample ID(s)	*Sample Date*	*Extraction / Preparation* Date extracted	Due for extraction	Evaluation	*Analysis* Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0902_SD002_210505, 0902_SD003_210505	**05-May-2021**	**----**	----	----	**10-May-2021**	19-May-2021	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0902_SD002_210505, 0902_SD003_210505	**05-May-2021**	**11-May-2021**	01-Nov-2021	✓	**11-May-2021**	20-Jun-2021	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0902_SD002_210505, 0902_SD003_210505	**05-May-2021**	**11-May-2021**	01-Nov-2021	✓	**11-May-2021**	20-Jun-2021	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0902_SD002_210505, 0902_SD003_210505	**05-May-2021**	**11-May-2021**	01-Nov-2021	✓	**11-May-2021**	20-Jun-2021	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0902_SD002_210505, 0902_SD003_210505	**05-May-2021**	**11-May-2021**	01-Nov-2021	✓	**11-May-2021**	20-Jun-2021	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0902_SD002_210505, 0902_SD003_210505	**05-May-2021**	**11-May-2021**	01-Nov-2021	✓	**11-May-2021**	20-Jun-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)							
0902_MW009_210503	**03-May-2021**	**09-May-2021**	30-Oct-2021	✓	**10-May-2021**	30-Oct-2021	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)							
0902_MW075_210504	**04-May-2021**	**09-May-2021**	31-Oct-2021	✓	**10-May-2021**	31-Oct-2021	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)							
0902_MW022_210505, 0902_SW003_210505	**05-May-2021**	**09-May-2021**	01-Nov-2021	✓	**10-May-2021**	01-Nov-2021	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_MW075_210504	**04-May-2021**	**----**	----	----	**10-May-2021**	01-Jun-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_MW022_210505, 0902_SW003_210505	**05-May-2021**	**----**	----	----	**10-May-2021**	02-Jun-2021	✓
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G)							
0902_MW075_210504	**04-May-2021**	**----**	----	----	**05-May-2021**	06-May-2021	✓
Clear Plastic Bottle - Natural (EK057G)							
0902_MW022_210505, 0902_SW003_210505	**05-May-2021**	**----**	----	----	**05-May-2021**	07-May-2021	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW009_210503	**03-May-2021**	**----**	----	----	**10-May-2021**	31-May-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW075_210504	**04-May-2021**	**----**	----	----	**10-May-2021**	01-Jun-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW022_210505, 0902_SW003_210505	**05-May-2021**	**----**	----	----	**10-May-2021**	02-Jun-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK061G) 0902_MW009_210503	**03-May-2021**	**10-May-2021**	31-May-2021	✓	**10-May-2021**	31-May-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK061G) 0902_MW075_210504	**04-May-2021**	**10-May-2021**	01-Jun-2021	✓	**10-May-2021**	01-Jun-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK061G) 0902_MW022_210505, 0902_SW003_210505	**05-May-2021**	**10-May-2021**	02-Jun-2021	✓	**10-May-2021**	02-Jun-2021	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G) 0902_MW009_210503	**03-May-2021**	**10-May-2021**	31-May-2021	✓	**10-May-2021**	31-May-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK067G) 0902_MW075_210504	**04-May-2021**	**10-May-2021**	01-Jun-2021	✓	**10-May-2021**	01-Jun-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK067G) 0902_MW022_210505, 0902_SW003_210505	**05-May-2021**	**10-May-2021**	02-Jun-2021	✓	**10-May-2021**	02-Jun-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X-INJ)							
0902_MW007_210503, 0902_MW008_210503, 0902_MW009_210503, 0902_MW010_210503, 0902_MW024_210503, 0902_MW027_210503, 0902_MW028_210503, 0902_MW030_210503, 0902_MW040_210503, 0902_MW041_210503, 0902_MW042_210503, 0902_MW043_210503, 0902_MW047_210503, 0902_MW048_210503, 0902_MW050_210503, 0902_MW051_210503, 0902_MW052_210503, 0902_MW053_210503, 0902_MW076_210503, 0902_MW077_210503, 0902_MW078_210503, 0902_MW079_210503, 0902_MW080_210503, 0902_MW086_210503, 0902_MW091_210503, 0902_QC100_210503, 0902_QC300_210503	**03-May-2021**	**12-May-2021**	30-Oct-2021	✓	**12-May-2021**	30-Oct-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW025_210504, 0902_MW026_210504, 0902_MW046_210504, 0902_MW054_210504, 0902_MW058_210504, 0902_MW060_210504, 0902_MW061_210504, 0902_MW062_210504, 0902_MW063_210504, 0902_MW064_210504, 0902_MW065_210504, 0902_MW066_210504, 0902_MW068_210504, 0902_MW070_210504, 0902_MW071_210504, 0902_MW075_210504, 0902_MW082_210504, 0902_QC101_210504, 0902_QC301_210504, 0902_MW057_210504	**04-May-2021**	**12-May-2021**	31-Oct-2021	✓	**12-May-2021**	31-Oct-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW022_210505, 0902_SW002_210505, 0902_MW023_210505, 0902_SW037_210505, 0902_SW003_210505, 0902_MW021_210505	**05-May-2021**	**12-May-2021**	01-Nov-2021	✓	**12-May-2021**	01-Nov-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X-INJ)							
0902_MW007_210503, 0902_MW008_210503, 0902_MW009_210503, 0902_MW010_210503, 0902_MW024_210503, 0902_MW027_210503, 0902_MW028_210503, 0902_MW030_210503, 0902_MW040_210503, 0902_MW041_210503, 0902_MW042_210503, 0902_MW043_210503, 0902_MW047_210503, 0902_MW048_210503, 0902_MW050_210503, 0902_MW051_210503, 0902_MW052_210503, 0902_MW053_210503, 0902_MW076_210503, 0902_MW077_210503, 0902_MW078_210503, 0902_MW079_210503, 0902_MW080_210503, 0902_MW086_210503, 0902_MW091_210503, 0902_QC100_210503, 0902_QC300_210503	**03-May-2021**	**12-May-2021**	30-Oct-2021	✓	**12-May-2021**	30-Oct-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW025_210504, 0902_MW026_210504, 0902_MW046_210504, 0902_MW054_210504, 0902_MW058_210504, 0902_MW060_210504, 0902_MW061_210504, 0902_MW062_210504, 0902_MW063_210504, 0902_MW064_210504, 0902_MW065_210504, 0902_MW066_210504, 0902_MW068_210504, 0902_MW070_210504, 0902_MW071_210504, 0902_MW075_210504, 0902_MW082_210504, 0902_QC101_210504, 0902_QC301_210504, 0902_MW057_210504	**04-May-2021**	**12-May-2021**	31-Oct-2021	✓	**12-May-2021**	31-Oct-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW022_210505, 0902_SW002_210505, 0902_MW023_210505, 0902_SW037_210505, 0902_SW003_210505, 0902_MW021_210505	**05-May-2021**	**12-May-2021**	01-Nov-2021	✓	**12-May-2021**	01-Nov-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X-INJ)							
0902_MW007_210503, 0902_MW008_210503, 0902_MW009_210503, 0902_MW010_210503, 0902_MW024_210503, 0902_MW027_210503, 0902_MW028_210503, 0902_MW030_210503, 0902_MW040_210503, 0902_MW041_210503, 0902_MW042_210503, 0902_MW043_210503, 0902_MW047_210503, 0902_MW048_210503, 0902_MW050_210503, 0902_MW051_210503, 0902_MW052_210503, 0902_MW053_210503, 0902_MW076_210503, 0902_MW077_210503, 0902_MW078_210503, 0902_MW079_210503, 0902_MW080_210503, 0902_MW086_210503, 0902_MW091_210503, 0902_QC100_210503, 0902_QC300_210503	**03-May-2021**	**12-May-2021**	30-Oct-2021	✓	**12-May-2021**	30-Oct-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW025_210504, 0902_MW026_210504, 0902_MW046_210504, 0902_MW054_210504, 0902_MW058_210504, 0902_MW060_210504, 0902_MW061_210504, 0902_MW062_210504, 0902_MW063_210504, 0902_MW064_210504, 0902_MW065_210504, 0902_MW066_210504, 0902_MW068_210504, 0902_MW070_210504, 0902_MW071_210504, 0902_MW075_210504, 0902_MW082_210504, 0902_QC101_210504, 0902_QC301_210504, 0902_MW057_210504	**04-May-2021**	**12-May-2021**	31-Oct-2021	✓	**12-May-2021**	31-Oct-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW022_210505, 0902_SW002_210505, 0902_MW023_210505, 0902_SW037_210505, 0902_SW003_210505, 0902_MW021_210505	**05-May-2021**	**12-May-2021**	01-Nov-2021	✓	**12-May-2021**	01-Nov-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X-INJ)							
0902_MW007_210503, 0902_MW008_210503, 0902_MW009_210503, 0902_MW010_210503, 0902_MW024_210503, 0902_MW027_210503, 0902_MW028_210503, 0902_MW030_210503, 0902_MW040_210503, 0902_MW041_210503, 0902_MW042_210503, 0902_MW043_210503, 0902_MW047_210503, 0902_MW048_210503, 0902_MW050_210503, 0902_MW051_210503, 0902_MW052_210503, 0902_MW053_210503, 0902_MW076_210503, 0902_MW077_210503, 0902_MW078_210503, 0902_MW079_210503, 0902_MW080_210503, 0902_MW086_210503, 0902_MW091_210503, 0902_QC100_210503, 0902_QC300_210503	**03-May-2021**	**12-May-2021**	30-Oct-2021	✓	**12-May-2021**	30-Oct-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW025_210504, 0902_MW026_210504, 0902_MW046_210504, 0902_MW054_210504, 0902_MW058_210504, 0902_MW060_210504, 0902_MW061_210504, 0902_MW062_210504, 0902_MW063_210504, 0902_MW064_210504, 0902_MW065_210504, 0902_MW066_210504, 0902_MW068_210504, 0902_MW070_210504, 0902_MW071_210504, 0902_MW075_210504, 0902_MW082_210504, 0902_QC101_210504, 0902_QC301_210504, 0902_MW057_210504	**04-May-2021**	**12-May-2021**	31-Oct-2021	✓	**12-May-2021**	31-Oct-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW022_210505, 0902_SW002_210505, 0902_MW023_210505, 0902_SW037_210505, 0902_SW003_210505, 0902_MW021_210505	**05-May-2021**	**12-May-2021**	01-Nov-2021	✓	**12-May-2021**	01-Nov-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X-INJ)							
0902_MW007_210503, 0902_MW008_210503, 0902_MW009_210503, 0902_MW010_210503, 0902_MW024_210503, 0902_MW027_210503, 0902_MW028_210503, 0902_MW030_210503, 0902_MW040_210503, 0902_MW041_210503, 0902_MW042_210503, 0902_MW043_210503, 0902_MW047_210503, 0902_MW048_210503, 0902_MW050_210503, 0902_MW051_210503, 0902_MW052_210503, 0902_MW053_210503, 0902_MW076_210503, 0902_MW077_210503, 0902_MW078_210503, 0902_MW079_210503, 0902_MW080_210503, 0902_MW086_210503, 0902_MW091_210503, 0902_QC100_210503, 0902_QC300_210503	**03-May-2021**	**12-May-2021**	30-Oct-2021	✓	**12-May-2021**	30-Oct-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW025_210504, 0902_MW026_210504, 0902_MW046_210504, 0902_MW054_210504, 0902_MW058_210504, 0902_MW060_210504, 0902_MW061_210504, 0902_MW062_210504, 0902_MW063_210504, 0902_MW064_210504, 0902_MW065_210504, 0902_MW066_210504, 0902_MW068_210504, 0902_MW070_210504, 0902_MW071_210504, 0902_MW075_210504, 0902_MW082_210504, 0902_QC101_210504, 0902_QC301_210504, 0902_MW057_210504	**04-May-2021**	**12-May-2021**	31-Oct-2021	✓	**12-May-2021**	31-Oct-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW022_210505, 0902_SW002_210505, 0902_MW023_210505, 0902_SW037_210505, 0902_SW003_210505, 0902_MW021_210505	**05-May-2021**	**12-May-2021**	01-Nov-2021	✓	**12-May-2021**	01-Nov-2021	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	4	25.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Ammonia as N by Discrete analyser	EK055G	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	57	0.00	10.00	×	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	2	50.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	3	13	23.08	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Ammonia as N by Discrete analyser	EK055G	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	57	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	2	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	3	19	15.79	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	20	15.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	57	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	2	50.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Method Blanks (MB) - Continued							
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	0	57	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	2	**50.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO3-. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	WATER	In house: Direct injection analysis of fresh waters after dilution (1:1) with mobile phase solvent. Analysis by LC-Electrospray-MS-MS, Negative Mode using MRM. Where commercially available, isotopically labelled analogues of the target analytes are used as internal standards for quantification. Where a labelled analogue is not commercially available, the internal standard with similar chemistry and the closest retention time to the target is used for quantification. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
Preparation for PFAS in water.	EP231-PR	WATER	Method presumes direct injection without workup. Preparation includes addition of internal standard and surrogate, and filtration prior to analysis.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2117089**	Page	: 1 of 6
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 06-May-2021 17:30
Order number	: 5.1	Date Analysis Commenced	: 07-May-2021
C-O-C number	: 22445	Issue Date	: 17-May-2021 17:05
Sampler	: MAT JENKINS, PRERANA YERDHALLI		
Site	: Batch 2		
Quote number	: SY/139/19 v4_NSW_0902_PFASOMP		
No. of samples received	: 2		
No. of samples analysed	: 2		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EG020: Bromine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- EP231X-INJ: The direct injection LCMSMS method may be used where the sample matrix is not suitable for Solid Phase Extraction (e.g. significant particulate load) or where only a single sample container is received.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW001_210506	0902_MW002_210506	----	----	----
				Sampling date / time	06-May-2021 09:47	06-May-2021 09:29	----	----	----
Compound	CAS Number	LOR	Unit		ES2117089-001	ES2117089-002	--------	--------	--------
					Result	Result	----	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		**0.104**	----	----	----	----
Iron	7439-89-6	0.05	mg/L		**0.07**	----	----	----	----
Bromine	7726-95-6	0.1	mg/L		**1.0**	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		<0.01	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.10**	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.10**	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		**0.2**	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		**0.3**	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.05**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.04**	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.03**	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**0.12**	<0.02	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.10	µg/L		<0.10	<0.10	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW001_210506	0902_MW002_210506	----	----	----
				Sampling date / time	06-May-2021 09:47	06-May-2021 09:29	----	----	----
Compound	CAS Number	LOR	Unit		ES2117089-001	ES2117089-002	--------	--------	--------
					Result	Result	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW001_210506	0902_MW002_210506	----	----	----
				Sampling date / time	06-May-2021 09:47	06-May-2021 09:29	----	----	----
Compound	CAS Number	LOR	Unit		ES2117089-001	ES2117089-002	--------	--------	--------
					Result	Result	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.19**	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.12**	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.16**	<0.01	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**99.3**	**97.9**	----	----	----
13C8-PFOA	----	0.02	%		**81.0**	**87.4**	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2117089**

Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Christopher.Redford@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 3
Order number	: 5.1	Quote number	: ES2021AECOMAU0008 (SY/139/19 v4_NSW_0902_PFASOMP)
C-O-C number	: 22445	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Batch 2		
Sampler	: MAT JENKINS, PRERANA YERDHALLI		

Dates

Date Samples Received	: 06-May-2021 17:30	Issue Date	: 07-May-2021
Client Requested Due Date	: 14-May-2021	Scheduled Reporting Date	: **14-May-2021**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not intact.
No. of coolers/boxes	: ----	Temperature	: 5.2'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 2 / 2

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
ES2117089-001	06-May-2021 09:47	0902_MW001_210506	✓	✓	✓
ES2117089-002	06-May-2021 09:29	0902_MW002_210506		✓	

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com

JACQUI DUNFORD

- *AU Certificate of Analysis - NATA (COA)	Email	jacqui.dunford@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jacqui.dunford@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jacqui.dunford@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	jacqui.dunford@aecom.com
- Chain of Custody (CoC) (COC)	Email	jacqui.dunford@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	jacqui.dunford@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	jacqui.dunford@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com

CHAIN OF CUSTODY

ALS COC#:- 22445 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 6/5/21 1730	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5-2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW001_210506		06/05/2021 09:47 AM	Water	ALS: 5 Non ALS: 0	No	X			
002	0902_MW002_210506		06/05/2021 09:29 AM	Water	ALS: 2 Non ALS: 0	No		X		

Environmental Division
Sydney
Work Order Reference
ES2117089

Telephone : +61-2-8784 8555

CHAIN OF CUSTODY

ALS COC#: 22445 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 6/5/21 1730	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

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QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

(Free ice) / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 5-2 °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW001_210506	HDPE (no PTFE)	20 mL	00352010020182	Grey	No	
001	0902_MW001_210506	HDPE (no PTFE)	20 mL	00352010020467	Grey	No	
001	0902_MW001_210506	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076714	Purple	No	
001	0902_MW001_210506	Clear Plastic Bottle - Natural	250 mL	00070121079335	Green	No	
001	0902_MW001_210506	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020011506	Red	Yes	
002	0902_MW002_210506	HDPE (no PTFE)	20 mL	00352010020265	Grey	No	
002	0902_MW002_210506	HDPE (no PTFE)	20 mL	00352010020655	Grey	No	

Total Bottle Count: ALS: 7, Non ALS: 0

W - 47
P - 84/C
M - 67/B
LC - 124

CHAIN OF CUSTODY

ALS COC#:- 22445 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 6/5/21 1730	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5-2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW001_210506		06/05/2021 09:47 AM	Water	ALS: 5 Non ALS: 0	No	X			
002	0902_MW002_210506		06/05/2021 09:29 AM	Water	ALS: 2 Non ALS: 0	No		X		

Environmental Division
Sydney
Work Order Reference
ES2117089

Telephone : +61-2-8784 8555

CHAIN OF CUSTODY

ALS COC#: 22445 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 6/5/21 1730	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

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CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

(Free ice) / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 5-2 °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW001_210506	HDPE (no PTFE)	20 mL	00352010020182	Grey	No	
001	0902_MW001_210506	HDPE (no PTFE)	20 mL	00352010020467	Grey	No	
001	0902_MW001_210506	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076714	Purple	No	
001	0902_MW001_210506	Clear Plastic Bottle - Natural	250 mL	00070121079335	Green	No	
001	0902_MW001_210506	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020011506	Red	Yes	
002	0902_MW002_210506	HDPE (no PTFE)	20 mL	00352010020265	Grey	No	
002	0902_MW002_210506	HDPE (no PTFE)	20 mL	00352010020655	Grey	No	

Total Bottle Count: ALS: 7, Non ALS: 0

W - 47
P - 84/C
M - 67/B
LC - 124

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2117089**	Page	: 1 of 8
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 06-May-2021
Order number	: 5.1	Date Analysis Commenced	: 07-May-2021
C-O-C number	: 22445	Issue Date	: 17-May-2021
Sampler	: MAT JENKINS, PRERANA YERDHALLI		
Site	: Batch 2		
Quote number	: SY/139/19 v4_NSW_0902_PFASOMP		
No. of samples received	: 2		
No. of samples analysed	: 2		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG020T: Total Metals by ICP-MS (QC Lot: 3672267)									
ES2117070-001	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	0.222	0.217	2.3	0% - 20%
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	0.08	0.07	19.2	No Limit
		EG020A-T: Iron	7439-89-6	0.05	mg/L	0.65	0.64	1.9	0% - 50%
ES2117098-024	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	1.26	1.23	1.8	0% - 20%
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	0.06	0.05	0.0	No Limit
		EG020A-T: Iron	7439-89-6	0.05	mg/L	5.33	5.33	0.0	0% - 20%
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 3672362)									
ES2117037-031	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.13	0.11	13.5	0% - 50%
ES2117140-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	318	320	0.7	0% - 20%
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3665715)									
ES2117098-025	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	0.03	0.03	0.00	No Limit
ES2117006-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	0.60	0.60	0.00	0% - 20%
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 3672363)									
ES2117119-006	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2117037-031	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.04	0.03	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 3672359)									
ES2117037-031	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.9	0.8	14.9	No Limit
ES2117119-006	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.2	0.2	0.0	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 3672358)									
ES2117037-031	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.07	0.06	0.0	No Limit
ES2117119-006	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 3680563)									
ES2117089-001	0902_MW001_210506	EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 3680563) - continued									
ES2117089-001	0902_MW001_210506	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	0.12	0.13	0.0	No Limit
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3680563)									
ES2117089-001	0902_MW001_210506	EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	<0.10	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3680563)									
ES2117089-001	0902_MW001_210506	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3680563)									
ES2117089-001	0902_MW001_210506	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3680563) - continued									
ES2117089-001	0902_MW001_210506	EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 3680563)									
ES2117089-001	0902_MW001_210506	EP231X-INJ: Sum of PFAS	----	0.01	µg/L	0.19	0.20	5.1	0% - 20%
		EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.12	0.13	8.0	0% - 50%
		EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.16	0.17	6.1	0% - 50%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 3672267)								
EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	93.1	82.0	120
EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	89.4	85.0	113
EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	99.0	85.0	117
EK055G: Ammonia as N by Discrete Analyser (QCLot: 3672362)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	94.6	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 3665715)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	101	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3672363)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	103	91.0	113
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3672359)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	10 mg/L	86.1	69.0	101
				<0.1	1 mg/L	105	70.0	118
				<0.1	5 mg/L	96.8	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3672358)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	90.2	71.0	101
				<0.01	0.442 mg/L	101	72.0	108
				<0.01	1 mg/L	98.5	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3680563)								
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.5 µg/L	94.0	72.0	130
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.5 µg/L	101	71.0	127
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	0.5 µg/L	94.8	68.0	131
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.5 µg/L	105	69.0	134
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.5 µg/L	97.2	65.0	140
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.5 µg/L	108	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3680563)								
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	105	73.0	129
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	107	72.0	129
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	108	72.0	129
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	104	72.0	130
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	107	71.0	133
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	108	69.0	130
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	106	71.0	129
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	112	69.0	133
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	108	72.0	134

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3680563) - continued								
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	109	65.0	144
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	120	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3680563)								
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	112	67.0	137
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	125	68.0	141
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	113	68.4	127
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	121	64.4	132
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	110	60.2	125
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	110	65.0	136
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	100	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3680563)								
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.5 µg/L	106	63.0	143
EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.5 µg/L	102	64.0	140
EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.5 µg/L	110	67.0	138
EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.5 µg/L	90.8	62.7	135
EP231P: PFAS Sums (QCLot: 3680563)								
EP231X-INJ: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
				Concentration	MS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 3672267)							
ES2117070-002	Anonymous	EG020A-T: Manganese	7439-96-5	1 mg/L	94.4	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 3672362)							
ES2117037-031	Anonymous	EK055G: Ammonia as N	7664-41-7	1 mg/L	101	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 3665715)							

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK057G: Nitrite as N by Discrete Analyser (QCLot: 3665715) - continued							
ES2117006-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	95.9	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3672363)							
ES2117037-031	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	105	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3672359)							
ES2117037-039	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	81.4	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3672358)							
ES2117037-039	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	95.2	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3680563)							
ES2117089-001	0902_MW001_210506	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.5 µg/L	76.0	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.5 µg/L	77.4	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.5 µg/L	75.8	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.5 µg/L	88.2	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.5 µg/L	85.0	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.5 µg/L	90.0	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3680563)							
ES2117089-001	0902_MW001_210506	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	82.7	73.0	129
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	90.6	72.0	129
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	88.6	72.0	129
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	87.8	72.0	130
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	88.4	71.0	133
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	86.0	69.0	130
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	89.4	71.0	129
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.5 µg/L	95.0	69.0	133
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.5 µg/L	94.0	72.0	134
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.5 µg/L	88.0	65.0	144
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	99.4	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3680563)							
ES2117089-001	0902_MW001_210506	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	98.2	67.0	137
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	97.2	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	81.9	68.5	127
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	92.9	64.4	132
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	95.8	60.2	125

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3680563) - continued							
ES2117089-001	0902_MW001_210506	EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	85.6	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	91.2	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3680563)							
ES2117089-001	0902_MW001_210506	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.5 µg/L	83.8	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.5 µg/L	87.2	64.0	140
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.5 µg/L	83.8	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.5 µg/L	80.0	62.7	135

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2117089**	Page	: 1 of 6
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 06-May-2021
Site	: Batch 2	Issue Date	: 17-May-2021
Sampler	: MAT JENKINS, PRERANA YERDHALLI	No. of samples received	: 2
Order number	: 5.1	No. of samples analysed	: 2

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)							
0902_MW001_210506	**06-May-2021**	**12-May-2021**	02-Nov-2021	✓	**12-May-2021**	02-Nov-2021	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_MW001_210506	**06-May-2021**	**----**	----	----	**12-May-2021**	03-Jun-2021	✓
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G)							
0902_MW001_210506	**06-May-2021**	**----**	----	----	**07-May-2021**	08-May-2021	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW001_210506	**06-May-2021**	**----**	----	----	**12-May-2021**	03-Jun-2021	✓
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK061G)							
0902_MW001_210506	**06-May-2021**	**12-May-2021**	03-Jun-2021	✓	**12-May-2021**	03-Jun-2021	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_MW001_210506	**06-May-2021**	**12-May-2021**	03-Jun-2021	✓	**12-May-2021**	03-Jun-2021	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X-INJ)							
0902_MW001_210506, 0902_MW002_210506	**06-May-2021**	**17-May-2021**	02-Nov-2021	✓	**17-May-2021**	02-Nov-2021	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X-INJ)							
0902_MW001_210506, 0902_MW002_210506	**06-May-2021**	**17-May-2021**	02-Nov-2021	✓	**17-May-2021**	02-Nov-2021	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X-INJ)							
0902_MW001_210506, 0902_MW002_210506	**06-May-2021**	**17-May-2021**	02-Nov-2021	✓	**17-May-2021**	02-Nov-2021	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X-INJ)							
0902_MW001_210506, 0902_MW002_210506	**06-May-2021**	**17-May-2021**	02-Nov-2021	✓	**17-May-2021**	02-Nov-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X-INJ)							
0902_MW001_210506, 0902_MW002_210506	**06-May-2021**	**17-May-2021**	02-Nov-2021	✓	**17-May-2021**	02-Nov-2021	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Ammonia as N by Discrete analyser	EK055G	2	15	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	7	**14.29**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Ammonia as N by Discrete analyser	EK055G	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	7	**14.29**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	3	20	**15.00**	**15.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	20	**15.00**	**15.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	7	**14.29**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	7	**14.29**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO3-. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	WATER	In house: Direct injection analysis of fresh waters after dilution (1:1) with mobile phase solvent. Analysis by LC-Electrospray-MS-MS, Negative Mode using MRM. Where commercially available, isotopically labelled analogues of the target analytes are used as internal standards for quantification. Where a labelled analogue is not commercially available, the internal standard with similar chemistry and the closest retention time to the target is used for quantification. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers.

Preparation Methods	Method	Matrix	Method Descriptions
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Preparation for PFAS in water.	EP231-PR	WATER	Method presumes direct injection without workup. Preparation includes addition of internal standard and surrogate, and filtration prior to analysis.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2117098**	Page	: 1 of 33
Amendment	: **1**		
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 06-May-2021 17:30
Order number	: 5.1	Date Analysis Commenced	: 07-May-2021
C-O-C number	: 22447	Issue Date	: 28-May-2021 11:33
Sampler	: MAT JENKINS, PRERANA YERDHALLI		
Site	: Batch 2		
Quote number	: SY/139/19 v4_NSW_0902_PFASOMP		
No. of samples received	: 50		
No. of samples analysed	: 49		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X: Poor Matrix spike recovery due to matrix interference.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EG020: Bromine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- EK057G/EK059G:LOR raised for Nitrite and NOx due to sample matrix.
- Amendment (27/05/2021): This report has been amended as a result of a client request to change PFAS data for method code EP231, samples #27, 32, 42, 46, 48.
- Amendment (28/05/2021): This report has been amended following a change to the EP231X: PFAS result reported for all samples as per request from AECOM, reported results take from a secondary analysis to confirm results. PFAS results are consistent with the original reported results.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW005_210506	0902_MW012_210506	0902_MW013_210506	0902_MW014_210506	0902_MW015_210506
				Sampling date / time	06-May-2021 08:14	06-May-2021 14:13	06-May-2021 11:56	06-May-2021 12:41	06-May-2021 12:42
Compound	CAS Number	LOR	Unit		ES2117098-001	ES2117098-002	ES2117098-003	ES2117098-004	ES2117098-005
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		**0.526**	----	----	----	----
Iron	7439-89-6	0.05	mg/L		**0.46**	----	----	----	----
Bromine	7726-95-6	0.1	mg/L		**9.0**	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		<0.01	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.16**	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.16**	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		**0.2**	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		**0.4**	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.13**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**1.43**	**0.55**	**0.34**	**0.15**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**1.63**	**0.65**	**0.32**	**0.17**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**0.10**	**9.97**	**5.64**	**1.38**	**1.33**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.21**	**0.05**	**0.02**	**0.06**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.04**	**1.47**	**0.11**	**0.07**	**0.86**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.41**	**0.05**	**0.05**	**0.03**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW005_210506	0902_MW012_210506	0902_MW013_210506	0902_MW014_210506	0902_MW015_210506
				Sampling date / time	06-May-2021 08:14	06-May-2021 14:13	06-May-2021 11:56	06-May-2021 12:41	06-May-2021 12:42
Compound	CAS Number	LOR	Unit		ES2117098-001	ES2117098-002	ES2117098-003	ES2117098-004	ES2117098-005
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**1.97**	**0.23**	**0.29**	**0.20**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.27**	**0.02**	**0.02**	**0.03**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.34**	**0.03**	<0.01	**0.06**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW005_210506	0902_MW012_210506	0902_MW013_210506	0902_MW014_210506	0902_MW015_210506
				Sampling date / time	06-May-2021 08:14	06-May-2021 14:13	06-May-2021 11:56	06-May-2021 12:41	06-May-2021 12:42
Compound	CAS Number	LOR	Unit		ES2117098-001	ES2117098-002	ES2117098-003	ES2117098-004	ES2117098-005
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.14**	**17.7**	**7.33**	**2.49**	**2.89**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.14**	**11.4**	**5.75**	**1.45**	**2.19**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.14**	**15.9**	**6.63**	**2.15**	**2.66**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**99.7**	**96.3**	**96.0**	**95.7**	**95.1**
13C8-PFOA	----	0.02	%		**88.8**	**88.3**	**87.4**	**87.6**	**88.7**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW016_210506	0902_MW017_210506	0902_MW020_210505	0902_MW032_210505	0902_MW033_210505
				Sampling date / time	06-May-2021 12:35	06-May-2021 14:10	05-May-2021 09:52	05-May-2021 12:46	05-May-2021 12:47
					ES2117098-006	ES2117098-007	ES2117098-008	ES2117098-009	ES2117098-010
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.41**	**0.38**	**1.10**	**2.05**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.59**	**0.62**	**1.05**	**2.66**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		<0.02	**7.01**	**7.30**	**5.35**	**14.2**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.15**	**0.14**	**0.18**	**0.57**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**1.90**	**0.42**	**0.34**	**3.12**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	**1.1**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.05**	**0.17**	**0.23**	**0.54**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.23**	**0.86**	**1.26**	**2.91**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.03**	**0.08**	**0.17**	**0.27**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.08**	**0.17**	**0.20**	**0.36**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW016_210506	0902_MW017_210506	0902_MW020_210505	0902_MW032_210505	0902_MW033_210505
				Sampling date / time	06-May-2021 12:35	06-May-2021 14:10	05-May-2021 09:52	05-May-2021 12:46	05-May-2021 12:47
Compound	CAS Number	LOR	Unit		ES2117098-006	ES2117098-007	ES2117098-008	ES2117098-009	ES2117098-010
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**10.4**	**10.1**	**9.88**	**27.8**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**8.91**	**7.72**	**5.69**	**17.3**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**9.71**	**9.38**	**8.65**	**24.6**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**93.0**	**100**	**95.2**	**97.0**	**96.1**
13C8-PFOA	----	0.02	%		**87.7**	**87.6**	**89.9**	**87.8**	**85.7**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW034_210505	0902_MW067_210505	0902_MW069_210505	0902_MW072_210505	0902_MW073_210505
				Sampling date / time	05-May-2021 12:47	05-May-2021 12:19	05-May-2021 12:29	05-May-2021 12:02	05-May-2021 12:12
					ES2117098-011	ES2117098-013	ES2117098-014	ES2117098-015	ES2117098-016
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.09**	<0.02	**0.03**	**11.0**	**2.53**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.09**	<0.02	<0.02	**8.58**	**3.23**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**0.95**	**0.03**	**0.15**	**51.5**	**21.4**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**2.12**	**0.76**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.08**	**0.01**	**0.20**	**12.8**	**3.86**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**0.5**	**0.4**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.06**	<0.02	<0.02	**1.74**	**0.73**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.14**	<0.02	**0.03**	**8.85**	**4.18**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.02**	<0.02	<0.02	**1.00**	**0.47**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.02**	<0.01	**0.01**	**1.90**	**0.82**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW034_210505	0902_MW067_210505	0902_MW069_210505	0902_MW072_210505	0902_MW073_210505
				Sampling date / time	05-May-2021 12:47	05-May-2021 12:19	05-May-2021 12:29	05-May-2021 12:02	05-May-2021 12:12
Compound	CAS Number	LOR	Unit		ES2117098-011	ES2117098-013	ES2117098-014	ES2117098-015	ES2117098-016
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.45**	**0.04**	**0.42**	**100**	**38.4**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.03**	**0.04**	**0.35**	**64.3**	**25.3**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.36**	**0.04**	**0.42**	**89.3**	**34.4**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**98.0**	**94.6**	**98.2**	**94.3**	**93.8**
13C8-PFOA	----	0.02	%		**87.3**	**87.0**	**86.4**	**86.8**	**86.2**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW074_210505	0902_MW081_210505	0902_MW092_210506	0902_MW095_210506	0902_MW097_210505
				Sampling date / time	05-May-2021 12:13	05-May-2021 13:49	06-May-2021 15:36	06-May-2021 14:31	05-May-2021 08:17
Compound	CAS Number	LOR	Unit		ES2117098-017	ES2117098-018	ES2117098-019	ES2117098-020	ES2117098-021
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	**0.01**	**0.01**	<0.01	**1.92**
Manganese	7439-96-5	0.001	mg/L		----	**6.04**	**0.869**	**1.48**	**7.95**
Iron	7439-89-6	0.05	mg/L		----	**0.85**	**44.6**	<0.05	**2.97**
Bromine	7726-95-6	0.1	mg/L		----	**0.9**	**1.3**	**4.2**	**0.6**
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	**0.10**	**3.27**	<0.01	<0.01
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	<0.01	<0.10	**0.02**	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	**0.03**	<0.10	**3.21**	**22.0**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	**0.03**	<0.10	**3.23**	**22.0**
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	**0.4**	**6.0**	**0.7**	**0.4**
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	**0.4**	**6.0**	**3.9**	**22.4**
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	**0.09**	**1.25**	**0.14**	**0.57**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**1.90**	<0.02	<0.02	**0.04**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**2.62**	<0.02	<0.02	**0.03**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**24.0**	<0.02	<0.02	**0.09**	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**1.58**	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**1.04**	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**0.1**	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.83**	<0.02	<0.02	<0.02	<0.02

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW074_210505	0902_MW081_210505	0902_MW092_210506	0902_MW095_210506	0902_MW097_210505
				Sampling date / time	05-May-2021 12:13	05-May-2021 13:49	06-May-2021 15:36	06-May-2021 14:31	05-May-2021 08:17
Compound	CAS Number	LOR	Unit		ES2117098-017	ES2117098-018	ES2117098-019	ES2117098-020	ES2117098-021
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**5.34**	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.41**	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.96**	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW074_210505	0902_MW081_210505	0902_MW092_210506	0902_MW095_210506	0902_MW097_210505
				Sampling date / time	05-May-2021 12:13	05-May-2021 13:49	06-May-2021 15:36	06-May-2021 14:31	05-May-2021 08:17
Compound	CAS Number	LOR	Unit		ES2117098-017	ES2117098-018	ES2117098-019	ES2117098-020	ES2117098-021
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**38.8**	<0.01	<0.01	**0.16**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**25.0**	<0.01	<0.01	**0.09**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**34.6**	<0.01	<0.01	**0.13**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**102**	**97.4**	**101**	**96.8**	**94.2**
13C8-PFOA	----	0.02	%		**87.0**	**89.6**	**87.0**	**87.1**	**83.9**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW098_210505	0902_SW009_210506	0902_SW035_210506	0902_SW013_210506	0902_QC103_210506
				Sampling date / time	05-May-2021 15:27	06-May-2021 11:11	06-May-2021 14:50	06-May-2021 14:09	06-May-2021 14:12
Compound	CAS Number	LOR	Unit		ES2117098-022	ES2117098-029	ES2117098-033	ES2117098-034	ES2117098-047
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	**0.13**	**0.13**	----	----
Manganese	7439-96-5	0.001	mg/L		**1.20**	**0.089**	**0.354**	----	----
Iron	7439-89-6	0.05	mg/L		**4.96**	**0.26**	**3.10**	----	----
Bromine	7726-95-6	0.1	mg/L		**2.1**	**0.2**	**0.1**	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		**0.07**	**0.13**	**0.03**	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	**0.01**	<0.01	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.06**	**0.36**	**0.06**	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.06**	**0.37**	**0.06**	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		**0.2**	**0.6**	**2.0**	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		**0.3**	**1.0**	**2.1**	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.18**	**0.21**	**0.61**	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.27**	<0.02	<0.02	**1.54**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.24**	<0.02	<0.02	**1.72**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		<0.02	**1.73**	<0.02	**0.14**	**8.90**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.11**	<0.02	<0.02	**0.22**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**3.84**	**0.05**	**0.16**	**1.63**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**0.1**	**0.3**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.11**	**0.02**	**0.02**	**0.38**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW098_210505	0902_SW009_210506	0902_SW035_210506	0902_SW013_210506	0902_QC103_210506
				Sampling date / time	05-May-2021 15:27	06-May-2021 11:11	06-May-2021 14:50	06-May-2021 14:09	06-May-2021 14:12
Compound	CAS Number	LOR	Unit		ES2117098-022	ES2117098-029	ES2117098-033	ES2117098-034	ES2117098-047
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.44**	<0.02	**0.03**	**1.65**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.07**	<0.02	<0.02	**0.29**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.14**	<0.01	<0.01	**0.31**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW098_210505	0902_SW009_210506	0902_SW035_210506	0902_SW013_210506	0902_QC103_210506
				Sampling date / time	05-May-2021 15:27	06-May-2021 11:11	06-May-2021 14:50	06-May-2021 14:09	06-May-2021 14:12
Compound	CAS Number	LOR	Unit		ES2117098-022	ES2117098-029	ES2117098-033	ES2117098-034	ES2117098-047
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**6.95**	**0.07**	**0.45**	**16.9**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**5.57**	**0.05**	**0.30**	**10.5**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**6.60**	**0.07**	**0.45**	**15.0**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**90.0**	**99.2**	**92.2**	**95.2**	**86.5**
13C8-PFOA	----	0.02	%		**83.8**	**84.1**	**80.6**	**79.0**	**82.4**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0902_SD005_210506	0902_SD008_210506	0902_SD022_210505	0902_SD015_210505	0902_SD007_210506
				Sampling date / time	06-May-2021 16:45	06-May-2021 16:45	05-May-2021 14:43	05-May-2021 16:45	06-May-2021 09:37
Compound	CAS Number	LOR	Unit		ES2117098-035	ES2117098-036	ES2117098-037	ES2117098-038	ES2117098-039
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**57.6**	**64.8**	**35.0**	**36.4**	**52.2**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		**0.0002**	**0.0004**	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0012**	**0.0020**	**0.0003**	**0.0005**	**0.0002**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0116**	**0.0043**	**0.0036**	**0.0048**	**0.0012**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	**0.0032**	**0.0009**	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0005**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	**0.0005**	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	**0.0002**	**0.0005**	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0902_SD005_210506	0902_SD008_210506	0902_SD022_210505	0902_SD015_210505	0902_SD007_210506
				Sampling date / time	06-May-2021 16:45	06-May-2021 16:45	05-May-2021 14:43	05-May-2021 16:45	06-May-2021 09:37
Compound	CAS Number	LOR	Unit		ES2117098-035	ES2117098-036	ES2117098-037	ES2117098-038	ES2117098-039
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	**0.0012**	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0130**	**0.0069**	**0.0095**	**0.0062**	**0.0019**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0128**	**0.0063**	**0.0039**	**0.0053**	**0.0014**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0130**	**0.0067**	**0.0041**	**0.0053**	**0.0019**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**96.5**	**63.0**	**98.0**	**91.0**	**76.5**
13C8-PFOA	----	0.0002	%		**90.0**	**87.5**	**92.0**	**92.5**	**80.0**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0902_SD009_210506	0902_SD024_210505	0902_SD016_210505	0902_SD014_210506	0902_SD035_210506
				Sampling date / time	06-May-2021 16:52	05-May-2021 17:18	05-May-2021 16:14	06-May-2021 08:36	06-May-2021 16:45
Compound	CAS Number	LOR	Unit		ES2117098-040	ES2117098-041	ES2117098-042	ES2117098-043	ES2117098-044
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**32.2**	**26.3**	**43.3**	**86.0**	**37.5**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0044**	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0054**	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0037**	<0.0002	**0.0006**	**0.0523**	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		**0.0007**	<0.0002	<0.0002	**0.0027**	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0712**	<0.0002	**0.0080**	**0.0625**	**0.0021**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		**0.0066**	<0.0002	<0.0002	**0.0010**	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		**0.0004**	<0.0002	<0.0002	**0.0041**	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		**0.0004**	<0.0002	<0.0002	**0.0151**	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		**0.0003**	<0.0002	<0.0002	**0.0014**	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		**0.0005**	<0.0002	**0.0005**	**0.0032**	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		**0.0005**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		**0.0009**	<0.0002	<0.0002	**0.0011**	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		**0.0012**	<0.0002	<0.0002	**0.0028**	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		**0.0010**	<0.0002	<0.0002	**0.0060**	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0010**	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0006	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		**0.0004**	<0.0002	<0.0002	**0.0003**	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0006	<0.0005

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0902_SD009_210506	0902_SD024_210505	0902_SD016_210505	0902_SD014_210506	0902_SD035_210506
				Sampling date / time	06-May-2021 16:52	05-May-2021 17:18	05-May-2021 16:14	06-May-2021 08:36	06-May-2021 16:45
Compound	CAS Number	LOR	Unit		ES2117098-040	ES2117098-041	ES2117098-042	ES2117098-043	ES2117098-044
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0006	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0006	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0006	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0878**	<0.0002	**0.0091**	**0.163**	**0.0021**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0749**	<0.0002	**0.0086**	**0.115**	**0.0021**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0765**	<0.0002	**0.0091**	**0.143**	**0.0021**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**82.5**	**89.0**	**66.5**	**105**	**94.0**
13C8-PFOA	----	0.0002	%		**84.5**	**90.5**	**76.5**	**88.5**	**76.5**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	0902_SD013_210506	----	----	----	----
			Sampling date / time	06-May-2021 12:19	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2117098-045	--------	--------	--------	--------
				Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**44.6**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0022**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	**0.0002**	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0276**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	**0.0003**	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	**0.0003**	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	**0.0006**	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	**0.0004**	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	**0.0006**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0902_SD013_210506	----	----	----	----
				Sampling date / time	06-May-2021 12:19	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2117098-045	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0322**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0298**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0317**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**106**	----	----	----	----
13C8-PFOA	----	0.0002	%		**81.0**	----	----	----	----

Analytical Results

Sub-Matrix: **SURFACE WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SW005_210506	0902_SW008_210506	0902_SW022_210505	0902_SW015_210505	0902_SW018_210506
				Sampling date / time	06-May-2021 09:14	06-May-2021 10:23	05-May-2021 14:19	05-May-2021 15:45	06-May-2021 16:08
					ES2117098-023	ES2117098-024	ES2117098-025	ES2117098-026	ES2117098-027
					Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	**0.06**	**0.11**	**0.01**	----
Manganese	7439-96-5	0.001	mg/L		----	**1.26**	**0.077**	**2.15**	----
Iron	7439-89-6	0.05	mg/L		----	**5.33**	**0.22**	**0.08**	----
Bromine	7726-95-6	0.1	mg/L		----	**1.1**	**0.2**	**1.7**	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	**0.24**	**0.27**	**1.54**	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	**0.02**	**0.03**	**0.04**	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	**0.15**	**0.45**	**0.17**	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	**0.17**	**0.48**	**0.21**	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	**6.6**	**1.3**	**2.5**	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	**6.8**	**1.8**	**2.7**	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	**1.63**	**0.27**	**0.29**	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.07**	<0.02	<0.02	**0.05**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.06**	<0.02	<0.02	**0.07**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**0.08**	**0.35**	<0.02	**0.13**	**0.54**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.03**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.05**	**0.19**	**0.02**	**0.09**	**0.62**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.03**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW005_210506	0902_SW008_210506	0902_SW022_210505	0902_SW015_210505	0902_SW018_210506
				Sampling date / time	06-May-2021 09:14	06-May-2021 10:23	05-May-2021 14:19	05-May-2021 15:45	06-May-2021 16:08
Compound	CAS Number	LOR	Unit		ES2117098-023	ES2117098-024	ES2117098-025	ES2117098-026	ES2117098-027
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.06**	<0.02	<0.02	**0.14**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.02**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.02**	<0.01	<0.01	**0.04**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW005_210506	0902_SW008_210506	0902_SW022_210505	0902_SW015_210505	0902_SW018_210506
				Sampling date / time	06-May-2021 09:14	06-May-2021 10:23	05-May-2021 14:19	05-May-2021 15:45	06-May-2021 16:08
Compound	CAS Number	LOR	Unit		ES2117098-023	ES2117098-024	ES2117098-025	ES2117098-026	ES2117098-027
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.13**	**0.75**	**0.02**	**0.22**	**1.54**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.13**	**0.54**	**0.02**	**0.22**	**1.16**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.13**	**0.69**	**0.02**	**0.22**	**1.44**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**93.3**	**90.5**	**94.3**	**93.5**	**94.0**
13C8-PFOA	----	0.02	%		**84.8**	**86.7**	**81.6**	**83.1**	**77.2**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0902_SW007_210506	0902_SW024_210505	0902_SW016_210505	0902_SW014_210506	0902_QC102_210506
			Sampling date / time	06-May-2021 09:30	05-May-2021 17:17	05-May-2021 16:13	06-May-2021 08:28	06-May-2021 09:15
Compound	CAS Number	LOR	Unit	ES2117098-028	ES2117098-030	ES2117098-031	ES2117098-032	ES2117098-046
				Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	----	----	**0.03**	----	----
Manganese	7439-96-5	0.001	mg/L	----	----	**0.896**	----	----
Iron	7439-89-6	0.05	mg/L	----	----	**1.38**	----	----
Bromine	7726-95-6	0.1	mg/L	----	----	**0.3**	----	----
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0.01	mg/L	----	----	**2.62**	----	----
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	14797-65-0	0.01	mg/L	----	----	**0.06**	----	----
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	0.01	mg/L	----	----	**0.17**	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	----	----	**0.23**	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Total Kjeldahl Nitrogen as N	----	0.1	mg/L	----	----	**8.5**	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser								
^ Total Nitrogen as N	----	0.1	mg/L	----	----	**8.7**	----	----
EK067G: Total Phosphorus as P by Discrete Analyser								
Total Phosphorus as P	----	0.01	mg/L	----	----	**1.79**	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**0.02**	<0.02	<0.02	**0.40**	**0.45**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	**0.41**	**0.64**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	**0.07**	<0.02	**0.02**	**3.46**	**4.80**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	**0.10**	**0.13**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.05**	<0.01	**0.03**	**0.60**	**0.80**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	**0.1**	**0.1**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	**0.39**	**0.46**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW007_210506	0902_SW024_210505	0902_SW016_210505	0902_SW014_210506	0902_QC102_210506
				Sampling date / time	06-May-2021 09:30	05-May-2021 17:17	05-May-2021 16:13	06-May-2021 08:28	06-May-2021 09:15
Compound	CAS Number	LOR	Unit		ES2117098-028	ES2117098-030	ES2117098-031	ES2117098-032	ES2117098-046
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.02**	<0.02	<0.02	**1.94**	**2.52**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.11**	**0.12**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.15**	**0.20**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW007_210506	0902_SW024_210505	0902_SW016_210505	0902_SW014_210506	0902_QC102_210506
				Sampling date / time	06-May-2021 09:30	05-May-2021 17:17	05-May-2021 16:13	06-May-2021 08:28	06-May-2021 09:15
Compound	CAS Number	LOR	Unit		ES2117098-028	ES2117098-030	ES2117098-031	ES2117098-032	ES2117098-046
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.16**	<0.01	**0.05**	**7.68**	**10.2**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.12**	<0.01	**0.05**	**4.06**	**5.60**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.16**	<0.01	**0.05**	**7.15**	**9.45**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**94.4**	**94.7**	**86.2**	**78.1**	**76.4**
13C8-PFOA	----	0.02	%		**81.5**	**85.8**	**84.2**	**70.9**	**70.3**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_QC104_210506	0902_SW023_210506	----	----	----
				Sampling date / time	06-May-2021 16:25	06-May-2021 15:44	----	----	----
Compound	CAS Number	LOR	Unit		ES2117098-048	ES2117098-050	--------	--------	--------
					Result	Result	----	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	**0.03**	----	----	----
Manganese	7439-96-5	0.001	mg/L		----	**1.08**	----	----	----
Iron	7439-89-6	0.05	mg/L		----	**0.51**	----	----	----
Bromine	7726-95-6	0.1	mg/L		----	**1.0**	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	**0.41**	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	**0.05**	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	**2.45**	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	**2.50**	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	**1.6**	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	**4.1**	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	**0.17**	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.07**	**0.11**	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.06**	**0.12**	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**0.62**	**0.81**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.04**	**0.08**	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.72**	**1.66**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.02**	**0.05**	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_QC104_210506	0902_SW023_210506	----	----	----
				Sampling date / time	06-May-2021 16:25	06-May-2021 15:44	----	----	----
Compound	CAS Number	LOR	Unit		ES2117098-048	ES2117098-050	--------	--------	--------
					Result	Result	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.16**	**0.21**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.02**	**0.04**	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.04**	**0.08**	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_QC104_210506	0902_SW023_210506	----	----	----
				Sampling date / time	06-May-2021 16:25	06-May-2021 15:44	----	----	----
Compound	CAS Number	LOR	Unit		ES2117098-048	ES2117098-050	--------	--------	--------
					Result	Result	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.75**	**3.16**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.34**	**2.47**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.65**	**2.96**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**76.3**	**97.2**	----	----	----
13C8-PFOA	----	0.02	%		**70.7**	**84.2**	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_QC302_210505	----	----	----	----
				Sampling date / time	05-May-2021 08:16	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2117098-049	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_QC302_210505	----	----	----	----
				Sampling date / time	05-May-2021 08:16	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2117098-049	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**90.9**	----	----	----	----
13C8-PFOA	----	0.02	%		**86.1**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2117098**		
Amendment	: **1**		
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Christopher.Redford@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 4
Order number	: 5.1	Quote number	: ES2021AECOMAU0008 (SY/139/19 v4_NSW_0902_PFASOMP)
C-O-C number	: 22447	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Batch 2		
Sampler	: MAT JENKINS, PRERANA YERDHALLI		

Dates

Date Samples Received	: 06-May-2021 17:30	Issue Date	: 28-May-2021
Client Requested Due Date	: 14-May-2021	Scheduled Reporting Date	: **14-May-2021**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 2	Temperature	: 5.2'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 49 / 49
		No. of samples NOT collected	1

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Changed sample date on Samples 021, 038 and 049 as per client.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Sample 0902_MW036_210505 was not received due to the following reason: sample not received
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2117098-035	06-May-2021 16:45	0902_SD005_210506	✓	✓
ES2117098-036	06-May-2021 16:45	0902_SD008_210506	✓	✓
ES2117098-037	05-May-2021 14:43	0902_SD022_210505	✓	✓
ES2117098-038	05-May-2021 16:45	0902_SD015_210505	✓	✓
ES2117098-039	06-May-2021 09:37	0902_SD007_210506	✓	✓
ES2117098-040	06-May-2021 16:52	0902_SD009_210506	✓	✓
ES2117098-041	05-May-2021 17:18	0902_SD024_210505	✓	✓
ES2117098-042	05-May-2021 16:14	0902_SD016_210505	✓	✓
ES2117098-043	06-May-2021 08:36	0902_SD014_210506	✓	✓
ES2117098-044	06-May-2021 16:45	0902_SD035_210506	✓	✓
ES2117098-045	06-May-2021 12:19	0902_SD013_210506	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
ES2117098-001	06-May-2021 08:14	0902_MW005_210506	✓	✓	✓
ES2117098-002	06-May-2021 14:13	0902_MW012_210506		✓	
ES2117098-003	06-May-2021 11:56	0902_MW013_210506		✓	
ES2117098-004	06-May-2021 12:41	0902_MW014_210506		✓	
ES2117098-005	06-May-2021 12:42	0902_MW015_210506		✓	
ES2117098-006	06-May-2021 12:35	0902_MW016_210506		✓	
ES2117098-007	06-May-2021 14:10	0902_MW017_210506		✓	
ES2117098-008	05-May-2021 09:52	0902_MW020_210505		✓	
ES2117098-009	05-May-2021 12:46	0902_MW032_210505		✓	
ES2117098-010	05-May-2021 12:47	0902_MW033_210505		✓	
ES2117098-011	05-May-2021 12:47	0902_MW034_210505		✓	
ES2117098-013	05-May-2021 12:19	0902_MW067_210505		✓	

			WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
ES2117098-014	05-May-2021 12:29	0902_MW069_210505		✓	
ES2117098-015	05-May-2021 12:02	0902_MW072_210505		✓	
ES2117098-016	05-May-2021 12:12	0902_MW073_210505		✓	
ES2117098-017	05-May-2021 12:13	0902_MW074_210505		✓	
ES2117098-018	05-May-2021 13:49	0902_MW081_210505	✓	✓	✓
ES2117098-019	06-May-2021 15:36	0902_MW092_210506	✓	✓	✓
ES2117098-020	06-May-2021 14:31	0902_MW095_210506	✓	✓	✓
ES2117098-021	05-May-2021 08:17	0902_MW097_210505	✓	✓	✓
ES2117098-022	05-May-2021 15:27	0902_MW098_210505	✓	✓	✓
ES2117098-023	06-May-2021 09:14	0902_SW005_210506		✓	
ES2117098-024	06-May-2021 10:23	0902_SW008_210506	✓	✓	✓
ES2117098-025	05-May-2021 14:19	0902_SW022_210505	✓	✓	✓
ES2117098-026	05-May-2021 15:45	0902_SW015_210505	✓	✓	✓
ES2117098-027	06-May-2021 16:08	0902_SW018_210506		✓	
ES2117098-028	06-May-2021 09:30	0902_SW007_210506		✓	
ES2117098-029	06-May-2021 11:11	0902_SW009_210506	✓	✓	✓
ES2117098-030	05-May-2021 17:17	0902_SW024_210505		✓	
ES2117098-031	05-May-2021 16:13	0902_SW016_210505	✓	✓	✓
ES2117098-032	06-May-2021 08:28	0902_SW014_210506		✓	
ES2117098-033	06-May-2021 14:50	0902_SW035_210506	✓	✓	✓
ES2117098-034	06-May-2021 14:09	0902_SW013_210506		✓	
ES2117098-046	06-May-2021 09:15	0902_QC102_210506		✓	
ES2117098-047	06-May-2021 14:12	0902_QC103_210506		✓	
ES2117098-048	06-May-2021 16:25	0902_QC104_210506		✓	
ES2117098-049	05-May-2021 08:16	0902_QC302_210505		✓	
ES2117098-050	06-May-2021 15:44	0902_SW023_210506	✓	✓	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com

REGINA BALOGH

- *AU Certificate of Analysis - NATA (COA)	Email	regina.balogh@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	regina.balogh@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	regina.balogh@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	regina.balogh@aecom.com
- Chain of Custody (CoC) (COC)	Email	regina.balogh@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	regina.balogh@aecom.com
- EDI Format - XTab (XTAB)	Email	regina.balogh@aecom.com

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2117098**	Page	: 1 of 18
Amendment	: **1**		
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 06-May-2021
Order number	: 5.1	Date Analysis Commenced	: 07-May-2021
C-O-C number	: 22447	Issue Date	: 28-May-2021
Sampler	: MAT JENKINS, PRERANA YERDHALLI		
Site	: Batch 2		
Quote number	: SY/139/19 v4_NSW_0902_PFASOMP		
No. of samples received	: 50		
No. of samples analysed	: 49		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 3675581)									
ES2117068-003	Anonymous	EA055: Moisture Content	----	0.1	%	13.6	13.9	2.4	0% - 20%
ES2117068-014	Anonymous	EA055: Moisture Content	----	0.1	%	11.7	12.8	8.9	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 3675582)									
ES2117098-039	0902_SD007_210506	EA055: Moisture Content	----	0.1	%	52.2	51.4	1.5	0% - 20%
ES2117898-001	Anonymous	EA055: Moisture Content	----	0.1	%	16.7	17.7	6.0	0% - 50%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 3677238)									
ES2117038-009	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0005	0.0005	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0010	0.0008	26.5	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2117098-041	0902_SD024_210505	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3677238)									
ES2117038-009	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3677238) - continued									
ES2117038-009	Anonymous	EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2117098-041	0902_SD024_210505	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3677238)									
ES2117038-009	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2117098-041	0902_SD024_210505	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3677238) - continued									
ES2117098-041	0902_SD024_210505	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3677238)									
ES2117038-009	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2117098-041	0902_SD024_210505	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020T: Total Metals by ICP-MS (QC Lot: 3672267)									
ES2117070-001	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	0.222	0.217	2.3	0% - 20%
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	0.08	0.07	19.2	No Limit
		EG020A-T: Iron	7439-89-6	0.05	mg/L	0.65	0.64	1.9	0% - 50%
ES2117098-024	0902_SW008_210506	EG020A-T: Manganese	7439-96-5	0.001	mg/L	1.26	1.23	1.8	0% - 20%
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	0.06	0.05	0.0	No Limit
		EG020A-T: Iron	7439-89-6	0.05	mg/L	5.33	5.33	0.0	0% - 20%
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 3671521)									
ES2117022-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2117098-019	0902_MW092_210506	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	3.27	3.28	0.0	0% - 20%
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3665715)									
ES2117098-025	0902_SW022_210505	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	0.03	0.03	0.00	No Limit
ES2117006-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	0.60	0.60	0.00	0% - 20%
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 3671522)									
ES2117022-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.04	0.04	0.0	No Limit
ES2117098-019	0902_MW092_210506	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.10	<0.10	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 3671520)									

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 3671520) - continued									
ES2117022-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.8	0.6	25.6	No Limit
ES2117098-020	0902_MW095_210506	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.7	0.9	18.2	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 3671519)									
ES2117022-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.03	0.06	48.1	No Limit
ES2117098-020	0902_MW095_210506	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.14	0.14	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 3676534)									
ES2117098-006	0902_MW016_210506	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 3678302)									
ES2117098-033	0902_SW035_210506	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.05	0.06	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 3678309)									
ES2117139-001	Anonymous	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2117139-004	Anonymous	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3676534)									
ES2117098-006	0902_MW016_210506	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3676534) - continued									
ES2117098-006	0902_MW016_210506	EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3678302)									
ES2117098-033	0902_SW035_210506	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3678309)									
ES2117139-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2117139-004	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3676534)									
ES2117098-006	0902_MW016_210506	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3678302)									
ES2117098-033	0902_SW035_210506	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3678309)									
ES2117139-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3678309) - continued									
ES2117139-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3676534)									
ES2117098-006	0902_MW016_210506	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3678302)									
ES2117098-033	0902_SW035_210506	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3678309)									
ES2117139-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3678309) - continued									
ES2117139-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 3676534)									
ES2117098-006	0902_MW016_210506	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 3678302)									
ES2117098-033	0902_SW035_210506	EP231X: Sum of PFAS	----	0.01	µg/L	0.07	0.06	15.4	No Limit
EP231P: PFAS Sums (QC Lot: 3678309)									
ES2117139-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.06	0.10	50.0	0% - 50%
ES2117139-004	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3677238)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	72.4	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.6	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.0	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.6	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	83.6	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	83.6	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3677238)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	87.4	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.4	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.2	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.4	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.0	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.2	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.8	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.0	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	107	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	97.4	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3677238)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	90.2	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	90.5	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	97.4	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	92.1	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.2	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3677238)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	83.6	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	95.2	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	92.4	65.0	137

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3677238) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	82.4	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG020T: Total Metals by ICP-MS (QCLot: 3672267)								
EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	93.1	82.0	120
EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	89.4	85.0	113
EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	99.0	85.0	117
EK055G: Ammonia as N by Discrete Analyser (QCLot: 3671521)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	96.4	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 3665715)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	101	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3671522)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	103	91.0	113
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3671520)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	10 mg/L	94.1	69.0	101
				<0.1	1 mg/L	102	70.0	118
				<0.1	5 mg/L	105	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3671519)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	96.5	71.0	101
				<0.01	0.442 mg/L	108	72.0	108
				<0.01	1 mg/L	109	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3676534)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	111	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	0.25 µg/L	111	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	111	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	93.2	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	95.0	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3678302)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	99.2	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	91.4	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	0.25 µg/L	83.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	88.6	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	90.0	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	98.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3678309)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3678309) - continued								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	99.2	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	127	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	0.25 µg/L	96.4	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	128	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	102	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	127	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3676534)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	100	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	128	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	114	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	118	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	108	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	119	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	114	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	113	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	114	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3678302)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	104	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	119	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	112	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	118	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	123	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	116	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	89.4	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	112	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3678309)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	99.3	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	124	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	125	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	127	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	126	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	122	71.0	129

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3678309) - continued								
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	123	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	122	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	122	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3676534)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	110	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	98.6	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	93.5	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	95.4	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	101	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	119	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	117	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3678302)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	104	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	102	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	100	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	98.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	95.9	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	115	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	109	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3678309)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	120	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	129	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	126	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	109	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	108	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	136

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3678309) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	107	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3676534)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	106	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	108	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	116	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	97.0	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3678302)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	97.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	106	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	121	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	93.2	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3678309)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	107	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	126	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	123	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	89.0	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3677238)							
ES2117038-009	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	72.8	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	106	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	94.8	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	87.6	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	82.0	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	90.0	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3677238)							
ES2117038-009	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	93.1	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	98.0	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	80.8	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	88.0	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	89.6	69.0	133

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3677238) - continued							
ES2117038-009	Anonymous	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	80.4	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	96.0	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	85.6	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	100	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	86.0	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	94.2	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3677238)							
ES2117038-009	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	85.6	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	93.9	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	78.7	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	90.2	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	87.0	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	85.6	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	84.4	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3677238)							
ES2117038-009	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	76.8	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	82.0	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	# 62.0	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	# 61.6	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EG020T: Total Metals by ICP-MS (QCLot: 3672267)							
ES2117070-002	Anonymous	EG020A-T: Manganese	7439-96-5	1 mg/L	94.4	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 3671521)							
ES2117022-001	Anonymous	EK055G: Ammonia as N	7664-41-7	1 mg/L	108	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 3665715)							
ES2117006-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	95.9	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3671522)							
ES2117022-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	103	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3671520)							
ES2117022-002	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	100	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3671519)							
ES2117022-002	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	103	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3676534)							
ES2117098-005	0902_MW015_210506	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	114	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	124	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	# Not Determined	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	115	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	87.8	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	94.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3678302)							
ES2117098-034	0902_SW013_210506	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	104	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	105	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	106	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	104	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	95.2	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	100	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3678309)							
ES2117139-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	97.2	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	117	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	81.8	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	115	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	88.6	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	110	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3676534)							
ES2117098-005	0902_MW015_210506	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	102	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	122	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	126	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	113	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	118	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	113	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	117	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	117	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	109	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	109	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	113	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3678302)							
ES2117098-034	0902_SW013_210506	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	107	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	107	72.0	129

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3678302) - continued							
ES2117098-034	0902_SW013_210506	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	101	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	125	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	118	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	115	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	124	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	122	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	124	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	106	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	114	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3678309)							
ES2117139-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	88.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	128	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	103	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	129	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	126	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	123	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	113	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	120	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	91.0	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	117	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	116	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3676534)							
ES2117098-005	0902_MW015_210506	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	108	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	99.0	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	100	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	92.5	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	97.0	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	114	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	109	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3678302)							
ES2117098-034	0902_SW013_210506	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	111	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	111	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	105	62.6	147

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3678302) - continued							
ES2117098-034	0902_SW013_210506	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	103	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	101	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	122	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	114	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3678309)							
ES2117139-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	128	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	119	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	110	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	102	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	85.8	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	102	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3676534)							
ES2117098-005	0902_MW015_210506	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	90.8	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	113	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	120	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	98.0	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3678302)							
ES2117098-034	0902_SW013_210506	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	97.4	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	102	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	117	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	96.0	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3678309)							
ES2117139-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	88.2	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	127	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	112	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	86.8	71.4	144

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2117098**	Page	: 1 of 14
Amendment	: **1**		
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 06-May-2021
Site	: Batch 2	Issue Date	: 28-May-2021
Sampler	: MAT JENKINS, PRERANA YERDHALLI	No. of samples received	: 50
Order number	: 5.1	No. of samples analysed	: 49

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231D: (n:2) Fluorotelomer Sulfonic Acids	ES2117038--009	Anonymous	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	39108-34-4	62.0 %	65.0-137%	**Recovery less than lower data quality objective**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	ES2117038--009	Anonymous	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	120226-60-0	61.6 %	69.2-143%	**Recovery less than lower data quality objective**

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2117098--005	0902_MW015_210506	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	4	53	7.55	10.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / ***Container*** / Client Sample ID(s)	***Sample Date***	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	***Date analysed***	*Due for analysis*	*Evaluation*

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055) 0902_SD022_210505, 0902_SD015_210505, 0902_SD024_210505, 0902_SD016_210505	**05-May-2021**	**----**	----	----	**13-May-2021**	19-May-2021	✓
HDPE Soil Jar (EA055) 0902_SD005_210506, 0902_SD008_210506, 0902_SD007_210506, 0902_SD009_210506, 0902_SD014_210506, 0902_SD035_210506, 0902_SD013_210506	**06-May-2021**	**----**	----	----	**13-May-2021**	20-May-2021	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD022_210505, 0902_SD015_210505, 0902_SD024_210505, 0902_SD016_210505	**05-May-2021**	**14-May-2021**	01-Nov-2021	✓	**15-May-2021**	23-Jun-2021	✓
HDPE Soil Jar (EP231X) 0902_SD005_210506, 0902_SD008_210506, 0902_SD007_210506, 0902_SD009_210506, 0902_SD014_210506, 0902_SD035_210506, 0902_SD013_210506	**06-May-2021**	**14-May-2021**	02-Nov-2021	✓	**15-May-2021**	23-Jun-2021	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X) 0902_SD022_210505, 0902_SD015_210505, 0902_SD024_210505, 0902_SD016_210505	**05-May-2021**	**14-May-2021**	01-Nov-2021	✓	**15-May-2021**	23-Jun-2021	✓
HDPE Soil Jar (EP231X) 0902_SD005_210506, 0902_SD008_210506, 0902_SD007_210506, 0902_SD009_210506, 0902_SD014_210506, 0902_SD035_210506, 0902_SD013_210506	**06-May-2021**	**14-May-2021**	02-Nov-2021	✓	**15-May-2021**	23-Jun-2021	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0902_SD022_210505, 0902_SD015_210505, 0902_SD024_210505, 0902_SD016_210505	**05-May-2021**	**14-May-2021**	01-Nov-2021	✓	**15-May-2021**	23-Jun-2021	✓
HDPE Soil Jar (EP231X) 0902_SD005_210506, 0902_SD008_210506, 0902_SD007_210506, 0902_SD009_210506, 0902_SD014_210506, 0902_SD035_210506, 0902_SD013_210506	**06-May-2021**	**14-May-2021**	02-Nov-2021	✓	**15-May-2021**	23-Jun-2021	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD022_210505, 0902_SD015_210505, 0902_SD024_210505, 0902_SD016_210505	**05-May-2021**	**14-May-2021**	01-Nov-2021	✓	**15-May-2021**	23-Jun-2021	✓
HDPE Soil Jar (EP231X) 0902_SD005_210506, 0902_SD008_210506, 0902_SD007_210506, 0902_SD009_210506, 0902_SD014_210506, 0902_SD035_210506, 0902_SD013_210506	**06-May-2021**	**14-May-2021**	02-Nov-2021	✓	**15-May-2021**	23-Jun-2021	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) 0902_SD022_210505, 0902_SD015_210505, 0902_SD024_210505, 0902_SD016_210505	**05-May-2021**	**14-May-2021**	01-Nov-2021	✓	**15-May-2021**	23-Jun-2021	✓
HDPE Soil Jar (EP231X) 0902_SD005_210506, 0902_SD008_210506, 0902_SD007_210506, 0902_SD009_210506, 0902_SD014_210506, 0902_SD035_210506, 0902_SD013_210506	**06-May-2021**	**14-May-2021**	02-Nov-2021	✓	**15-May-2021**	23-Jun-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T) 0902_MW081_210505, 0902_MW097_210505, 0902_MW098_210505, 0902_SW022_210505, 0902_SW015_210505, 0902_SW016_210505	**05-May-2021**	**12-May-2021**	01-Nov-2021	✓	**12-May-2021**	01-Nov-2021	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T) 0902_MW005_210506, 0902_MW092_210506, 0902_MW095_210506, 0902_SW008_210506, 0902_SW009_210506, 0902_SW035_210506, 0902_SW023_210506	**06-May-2021**	**12-May-2021**	02-Nov-2021	✓	**12-May-2021**	02-Nov-2021	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G) 0902_MW081_210505, 0902_MW097_210505, 0902_MW098_210505, 0902_SW022_210505, 0902_SW015_210505, 0902_SW016_210505	**05-May-2021**	**----**	----	----	**11-May-2021**	02-Jun-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK055G) 0902_MW005_210506, 0902_MW092_210506, 0902_MW095_210506, 0902_SW008_210506, 0902_SW009_210506, 0902_SW035_210506, 0902_SW023_210506	**06-May-2021**	**----**	----	----	**11-May-2021**	03-Jun-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G)							
0902_MW081_210505, 0902_MW097_210505, 0902_MW098_210505, 0902_SW022_210505, 0902_SW015_210505, 0902_SW016_210505	**05-May-2021**	**----**	----	----	**07-May-2021**	07-May-2021	✓
Clear Plastic Bottle - Natural (EK057G)							
0902_MW005_210506, 0902_MW092_210506, 0902_MW095_210506, 0902_SW008_210506, 0902_SW009_210506, 0902_SW035_210506, 0902_SW023_210506	**06-May-2021**	**----**	----	----	**07-May-2021**	08-May-2021	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW081_210505, 0902_MW097_210505, 0902_MW098_210505, 0902_SW022_210505, 0902_SW015_210505, 0902_SW016_210505	**05-May-2021**	**----**	----	----	**11-May-2021**	02-Jun-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW005_210506, 0902_MW092_210506, 0902_MW095_210506, 0902_SW008_210506, 0902_SW009_210506, 0902_SW035_210506, 0902_SW023_210506	**06-May-2021**	**----**	----	----	**11-May-2021**	03-Jun-2021	✓
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK061G)							
0902_MW081_210505, 0902_MW097_210505, 0902_MW098_210505, 0902_SW022_210505, 0902_SW015_210505, 0902_SW016_210505	**05-May-2021**	**11-May-2021**	02-Jun-2021	✓	**11-May-2021**	02-Jun-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK061G)							
0902_MW005_210506, 0902_MW092_210506, 0902_MW095_210506, 0902_SW008_210506, 0902_SW009_210506, 0902_SW035_210506, 0902_SW023_210506	**06-May-2021**	**11-May-2021**	03-Jun-2021	✓	**11-May-2021**	03-Jun-2021	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_MW081_210505, 0902_MW097_210505, 0902_MW098_210505, 0902_SW022_210505, 0902_SW015_210505, 0902_SW016_210505	**05-May-2021**	**11-May-2021**	02-Jun-2021	✓	**11-May-2021**	02-Jun-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_MW005_210506, 0902_MW092_210506, 0902_MW095_210506, 0902_SW008_210506, 0902_SW009_210506, 0902_SW035_210506, 0902_SW023_210506	**06-May-2021**	**11-May-2021**	03-Jun-2021	✓	**11-May-2021**	03-Jun-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW020_210505, 0902_MW032_210505, 0902_MW033_210505, 0902_MW034_210505, 0902_MW067_210505, 0902_MW069_210505, 0902_MW072_210505, 0902_MW073_210505, 0902_MW074_210505, 0902_MW081_210505, 0902_MW097_210505, 0902_MW098_210505, 0902_SW022_210505, 0902_SW015_210505, 0902_SW024_210505, 0902_SW016_210505, 0902_QC302_210505	**05-May-2021**	**15-May-2021**	01-Nov-2021	✓	**15-May-2021**	01-Nov-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW005_210506, 0902_MW012_210506, 0902_MW013_210506, 0902_MW014_210506, 0902_MW015_210506, 0902_MW016_210506, 0902_MW017_210506, 0902_MW092_210506, 0902_MW095_210506, 0902_SW005_210506, 0902_SW008_210506, 0902_SW018_210506, 0902_SW007_210506, 0902_SW009_210506, 0902_SW014_210506, 0902_SW035_210506, 0902_SW013_210506, 0902_QC102_210506, 0902_QC103_210506, 0902_QC104_210506, 0902_SW023_210506	**06-May-2021**	**15-May-2021**	02-Nov-2021	✓	**15-May-2021**	02-Nov-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW020_210505, 0902_MW032_210505, 0902_MW033_210505, 0902_MW034_210505, 0902_MW067_210505, 0902_MW069_210505, 0902_MW072_210505, 0902_MW073_210505, 0902_MW074_210505, 0902_MW081_210505, 0902_MW097_210505, 0902_MW098_210505, 0902_SW022_210505, 0902_SW015_210505, 0902_SW024_210505, 0902_SW016_210505, 0902_QC302_210505	**05-May-2021**	**15-May-2021**	01-Nov-2021	✓	**15-May-2021**	01-Nov-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW005_210506, 0902_MW012_210506, 0902_MW013_210506, 0902_MW014_210506, 0902_MW015_210506, 0902_MW016_210506, 0902_MW017_210506, 0902_MW092_210506, 0902_MW095_210506, 0902_SW005_210506, 0902_SW008_210506, 0902_SW018_210506, 0902_SW007_210506, 0902_SW009_210506, 0902_SW014_210506, 0902_SW035_210506, 0902_SW013_210506, 0902_QC102_210506, 0902_QC103_210506, 0902_QC104_210506, 0902_SW023_210506	**06-May-2021**	**15-May-2021**	02-Nov-2021	✓	**15-May-2021**	02-Nov-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0902_MW020_210505, 0902_MW032_210505, 0902_MW033_210505, 0902_MW034_210505, 0902_MW067_210505, 0902_MW069_210505, 0902_MW072_210505, 0902_MW073_210505, 0902_MW074_210505, 0902_MW081_210505, 0902_MW097_210505, 0902_MW098_210505, 0902_SW022_210505, 0902_SW015_210505, 0902_SW024_210505, 0902_SW016_210505, 0902_QC302_210505	**05-May-2021**	**15-May-2021**	01-Nov-2021	✓	**15-May-2021**	01-Nov-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW005_210506, 0902_MW012_210506, 0902_MW013_210506, 0902_MW014_210506, 0902_MW015_210506, 0902_MW016_210506, 0902_MW017_210506, 0902_MW092_210506, 0902_MW095_210506, 0902_SW005_210506, 0902_SW008_210506, 0902_SW018_210506, 0902_SW007_210506, 0902_SW009_210506, 0902_SW014_210506, 0902_SW035_210506, 0902_SW013_210506, 0902_QC102_210506, 0902_QC103_210506, 0902_QC104_210506, 0902_SW023_210506	**06-May-2021**	**15-May-2021**	02-Nov-2021	✓	**15-May-2021**	02-Nov-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW020_210505, 0902_MW032_210505, 0902_MW033_210505, 0902_MW034_210505, 0902_MW067_210505, 0902_MW069_210505, 0902_MW072_210505, 0902_MW073_210505, 0902_MW074_210505, 0902_MW081_210505, 0902_MW097_210505, 0902_MW098_210505, 0902_SW022_210505, 0902_SW015_210505, 0902_SW024_210505, 0902_SW016_210505, 0902_QC302_210505	**05-May-2021**	**15-May-2021**	01-Nov-2021	✓	**15-May-2021**	01-Nov-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW005_210506, 0902_MW012_210506, 0902_MW013_210506, 0902_MW014_210506, 0902_MW015_210506, 0902_MW016_210506, 0902_MW017_210506, 0902_MW092_210506, 0902_MW095_210506, 0902_SW005_210506, 0902_SW008_210506, 0902_SW018_210506, 0902_SW007_210506, 0902_SW009_210506, 0902_SW014_210506, 0902_SW035_210506, 0902_SW013_210506, 0902_QC102_210506, 0902_QC103_210506, 0902_QC104_210506, 0902_SW023_210506	**06-May-2021**	**15-May-2021**	02-Nov-2021	✓	**15-May-2021**	02-Nov-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0902_MW020_210505, 0902_MW032_210505, 0902_MW033_210505, 0902_MW034_210505, 0902_MW067_210505, 0902_MW069_210505, 0902_MW072_210505, 0902_MW073_210505, 0902_MW074_210505, 0902_MW081_210505, 0902_MW097_210505, 0902_MW098_210505, 0902_SW022_210505, 0902_SW015_210505, 0902_SW024_210505, 0902_SW016_210505, 0902_QC302_210505	**05-May-2021**	**15-May-2021**	01-Nov-2021	✓	**15-May-2021**	01-Nov-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW005_210506, 0902_MW012_210506, 0902_MW013_210506, 0902_MW014_210506, 0902_MW015_210506, 0902_MW016_210506, 0902_MW017_210506, 0902_MW092_210506, 0902_MW095_210506, 0902_SW005_210506, 0902_SW008_210506, 0902_SW018_210506, 0902_SW007_210506, 0902_SW009_210506, 0902_SW014_210506, 0902_SW035_210506, 0902_SW013_210506, 0902_QC102_210506, 0902_QC103_210506, 0902_QC104_210506, 0902_SW023_210506	**06-May-2021**	**15-May-2021**	02-Nov-2021	✓	**15-May-2021**	02-Nov-2021	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Ammonia as N by Discrete analyser	EK055G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	53	7.55	10.00	×	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	53	5.66	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	3	20	15.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	20	15.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	53	5.66	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	53	**5.66**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO3-. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

CHAIN OF CUSTODY

ALS COC#: 22447 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Scott/ALS 6/5/21 1730	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5-2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW005_210506		06/05/2021 08:14 AM	Water	ALS: 5 Non ALS: 0	No	X				
002	0902_MW012_210506		06/05/2021 02:13 PM	Water	ALS: 2 Non ALS: 0	No			X		
003	0902_MW013_210506		06/05/2021 11:56 AM	Water	ALS: 2 Non ALS: 0	No			X		
004	0902_MW014_210506		06/05/2021 12:41 PM	Water	ALS: 4 Non ALS: 0	No			X		
005	0902_MW015_210506		06/05/2021 12:42 PM	Water	ALS: 4 Non ALS: 0	No			X		
006	0902_MW016_210506		06/05/2021 12:35 PM	Water	ALS: 4 Non ALS: 0	No			X		
007	0902_MW017_210506		06/05/2021 02:10 PM	Water	ALS: 2 Non ALS: 0	No			X		
008	0902_MW020_210505		05/05/2021 09:52 AM	Water	ALS: 2 Non ALS: 0	No			X		
009	0902_MW032_210505		05/05/2021 12:46 PM	Water	ALS: 2 Non ALS: 0	No			X		

Environmental Division Sydney

Work Order Reference

ES2117098

Telephone : + 61-2-8784 8555

CHAIN OF CUSTODY

ALS COC#: 22447 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 6/5/21 1730	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_MW033_210505		05/05/2021 12:47 PM	Water	ALS: 2 Non ALS: 0	No			X		
011	0902_MW034_210505		05/05/2021 12:47 PM	Water	ALS: 2 Non ALS: 0	No			X		
012	0902_MW036_210505		05/05/2021 09:55 AM	Water	ALS: 2 Non ALS: 0	No			X		
013	0902_MW067_210505		05/05/2021 12:19 PM	Water	ALS: 2 Non ALS: 0	No			X		
014	0902_MW069_210505		05/05/2021 12:29 PM	Water	ALS: 2 Non ALS: 0	No			X		
015	0902_MW072_210505		05/05/2021 12:02 PM	Water	ALS: 2 Non ALS: 0	No			X		
016	0902_MW073_210505		05/05/2021 12:12 PM	Water	ALS: 2 Non ALS: 0	No			X		
017	0902_MW074_210505		05/05/2021 12:13 PM	Water	ALS: 2 Non ALS: 0	No			X		
018	0902_MW081_210505		05/05/2021 01:49 PM	Water	ALS: 5 Non ALS: 0	No	X				

NR

CHAIN OF CUSTODY

ALS COC#: 22447 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 6/5/21 1730	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0902_MW092_210506	Extra analytes	06/05/2021 03:36 PM	Water	ALS: 7 Non ALS: 0	No	X				
020	0902_MW095_210506	Extra analysis	06/05/2021 02:31 PM	Water	ALS: 7 Non ALS: 0	No	X				
021	0902_MW097_210505	Extra analysis	06/05/2021 08:17 AM	Water	ALS: 5 Non ALS: 0	No	X				
022	0902_MW098_210505	Extra analysis	05/05/2021 03:27 PM	Water	ALS: 5 Non ALS: 0	No	X				
023	0902_SW005_210506		06/05/2021 09:14 AM	Water	ALS: 2 Non ALS: 0	No			X		
024	0902_SW008_210506	Extra analytes	06/05/2021 10:23 AM	Water	ALS: 5 Non ALS: 0	No	X				
025	0902_SW022_210505		05/05/2021 02:19 PM	Water	ALS: 5 Non ALS: 0	No	X				
026	0902_SW015_210505	Extra analystes	05/05/2021 03:45 PM	Water	ALS: 5 Non ALS: 0	No	X				
027	0902_SW018_210506		06/05/2021 04:08 PM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 22447 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 6/5/21 1730	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
028	0902_SW007_210506		06/05/2021 09:30 AM	Water	ALS: 2 Non ALS: 0	No			X		
029	0902_SW009_210506	Extra analytes	06/05/2021 11:11 AM	Water	ALS: 5 Non ALS: 0	No	X				
030	0902_SW024_210505		05/05/2021 05:17 PM	Water	ALS: 2 Non ALS: 0	No			X		
031	0902_SW016_210505	Extra analytes	05/05/2021 04:13 PM	Water	ALS: 5 Non ALS: 0	No	X				
032	0902_SW014_210506		06/05/2021 08:28 AM	Water	ALS: 2 Non ALS: 0	No			X		
033	0902_SW035_210506	Extra analytes	06/05/2021 02:50 PM	Water	ALS: 7 Non ALS: 0	No	X				
034	0902_SW013_210506		06/05/2021 02:09 PM	Water	ALS: 4 Non ALS: 0	No			X		
035	0902_SD005_210506			Soil	ALS: 0 Non ALS: 0	No		X			
036	0902_SD008_210506			Soil	ALS: 0 Non ALS: 0	No		X			

CHAIN OF CUSTODY

ALS COC#: 22447 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Sophie AS 6/5/21 1730	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 5-2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
037	0902_SD022_210505	Sampled	05/05/2021 02:43 PM	Soil	ALS: 0 Non ALS: 0	No		X			
038	0902_SD015_210505			Soil	ALS: 0 Non ALS: 0	No		X			
039	0902_SD007_210506		06/05/2021 09:37 AM	Soil	ALS: 0 Non ALS: 0	No		X			
040	0902_SD009_210506			Soil	ALS: 0 Non ALS: 0	No		X			
041	0902_SD024_210505		05/05/2021 05:18 PM	Soil	ALS: 0 Non ALS: 0	No		X			
042	0902_SD016_210505		05/05/2021 04:14 PM	Soil	ALS: 0 Non ALS: 0	No		X			
043	0902_SD014_210506	00620719040440	06/05/2021 08:36 AM	Soil	ALS: 0 Non ALS: 0	No		X			
044	0902_SD035_210506			Soil	ALS: 0 Non ALS: 0	No		X			
045	0902_SD013_210506		06/05/2021 12:19 PM	Water	ALS: 0 Non ALS: 0	No		X			

CHAIN OF CUSTODY

ALS COC#: 22447 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 6/5/21 1750	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments: 5.2

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
046	0902_QC102_210506		06/05/2021 09:15 AM	Water	ALS: 2 Non ALS: 0	No			X		
047	0902_QC103_210506		06/05/2021 02:12 PM	Water	ALS: 2 Non ALS: 0	No			X		
048	0902_QC104_210506		06/05/2021 04:25 PM	Water	ALS: 2 Non ALS: 0	No			X		
049	0902_QC302_210505		06/05/2021 08:16 AM	Water	ALS: 2 Non ALS: 0	No			X		
050	0902_SW023_210506		06/05/2021 03:44 PM	Water	ALS: 7 Non ALS: 0	No	X				

CHAIN OF CUSTODY

ALS COC#: 22447 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 6/5/24 1730	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 5.2 °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW005_210506	Clear Plastic Bottle - Natural	250 mL	00070121079342	Green	No	
001	0902_MW005_210506	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076972	Purple	No	
001	0902_MW005_210506	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020011525	Red	Yes	
001	0902_MW005_210506	HDPE (no PTFE)	20 mL	00352010020278	Grey	No	
001	0902_MW005_210506	HDPE (no PTFE)	20 mL	00352010020270	Grey	No	
002	0902_MW012_210506	HDPE (no PTFE)	20 mL	00352010020464	Grey	No	
002	0902_MW012_210506	HDPE (no PTFE)	20 mL	00352010020685	Grey	No	
003	0902_MW013_210506	HDPE (no PTFE)	20 mL	00352010020671	Grey	No	
003	0902_MW013_210506	HDPE (no PTFE)	20 mL	00352010020476	Grey	No	
004	0902_MW014_210506	HDPE (no PTFE)	20 mL	00352010020687	Grey	No	
004	0902_MW014_210506	HDPE (no PTFE)	20 mL	00352010020740	Grey	No	
004	0902_MW014_210506	HDPE (no PTFE)	20 mL	00352010020676	Grey	No	
004	0902_MW014_210506	HDPE (no PTFE)	20 mL	00352010020587	Grey	No	
005	0902_MW015_210506	HDPE (no PTFE)	20 mL	00352010020297	Grey	No	
005	0902_MW015_210506	HDPE (no PTFE)	20 mL	00352010020646	Grey	No	
005	0902_MW015_210506	HDPE (no PTFE)	20 mL	00352010020185	Grey	No	
005	0902_MW015_210506	HDPE (no PTFE)	20 mL	00352010020242	Grey	No	
006	0902_MW016_210506	HDPE (no PTFE)	20 mL	00352010020732	Grey	No	
006	0902_MW016_210506	HDPE (no PTFE)	20 mL	00352010020547	Grey	No	
006	0902_MW016_210506	HDPE (no PTFE)	20 mL	00352010020209	Grey	No	
006	0902_MW016_210506	HDPE (no PTFE)	20 mL	00352010020228	Grey	No	
007	0902_MW017_210506	HDPE (no PTFE)	20 mL	00352010020314	Grey	No	
007	0902_MW017_210506	HDPE (no PTFE)	20 mL	00352010020722	Grey	No	
008	0902_MW020_210505	HDPE (no PTFE)	20 mL	00352010020158	Grey	No	
008	0902_MW020_210505	HDPE (no PTFE)	20 mL	00352010020226	Grey	No	
009	0902_MW032_210505	HDPE (no PTFE)	20 mL	00352010020482	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 22447 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 6/5/21 1730	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 / ES2021AECOMAU0008
v4_NSW_0902_PFASOMP

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5-2 °C

Other comments:

009	0902_MW032_210505	HDPE (no PTFE)	20 mL	00352010020393	Grey	No	
010	0902_MW033_210505	HDPE (no PTFE)	20 mL	00352010020525	Grey	No	
010	0902_MW033_210505	HDPE (no PTFE)	20 mL	00352010020461	Grey	No	
011	0902_MW034_210505	HDPE (no PTFE)	20 mL	00352010020201	Grey	No	
011	0902_MW034_210505	HDPE (no PTFE)	20 mL	00352010020217	Grey	No	
012	0902_MW036_210505	HDPE (no PTFE)	20 mL	00352010020574	Grey	No	
012	0902_MW036_210505	HDPE (no PTFE)	20 mL	00352010020188	Grey	No	
013	0902_MW067_210505	HDPE (no PTFE)	20 mL	00352010020379	Grey	No	
013	0902_MW067_210505	HDPE (no PTFE)	20 mL	00352010020649	Grey	No	
014	0902_MW069_210505	HDPE (no PTFE)	20 mL	00352010020205	Grey	No	
014	0902_MW069_210505	HDPE (no PTFE)	20 mL	00352010020683	Grey	No	
015	0902_MW072_210505	HDPE (no PTFE)	20 mL	00352010020487	Grey	No	
015	0902_MW072_210505	HDPE (no PTFE)	20 mL	00352010020644	Grey	No	
016	0902_MW073_210505	HDPE (no PTFE)	20 mL	00352010020573	Grey	No	
016	0902_MW073_210505	HDPE (no PTFE)	20 mL	00352010020371	Grey	No	
017	0902_MW074_210505	HDPE (no PTFE)	20 mL	00352010020215	Grey	No	
017	0902_MW074_210505	HDPE (no PTFE)	20 mL	00352010020692	Grey	No	
018	0902_MW081_210505	HDPE (no PTFE)	20 mL	00352010020230	Grey	No	
018	0902_MW081_210505	HDPE (no PTFE)	20 mL	00352010020436	Grey	No	
018	0902_MW081_210505	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076934	Purple	No	
018	0902_MW081_210505	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020010628	Red	Yes	
018	0902_MW081_210505	Clear Plastic Bottle - Natural	250 mL	00070121079355	Green	No	
019	0902_MW092_210506	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020011573	Red	Yes	
019	0902_MW092_210506	HDPE (no PTFE)	20 mL	00352010022507	Grey	No	
019	0902_MW092_210506	HDPE (no PTFE)	20 mL	00352010022696	Grey	No	
019	0902_MW092_210506	HDPE (no PTFE)	20 mL	00352010022411	Grey	No	
019	0902_MW092_210506	HDPE (no PTFE)	20 mL	00352010022567	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 22447 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 6/5/21 1730	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 5.3 °C

Other comments:

019	0902_MW092_210506	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076724	Purple	No	
019	0902_MW092_210506	Clear Plastic Bottle - Natural	250 mL	00070121079336	Green	No	
020	0902_MW095_210506	HDPE (no PTFE)	20 mL	00352010020189	Grey	No	
020	0902_MW095_210506	HDPE (no PTFE)	20 mL	00352010020167	Grey	No	
020	0902_MW095_210506	HDPE (no PTFE)	20 mL	00352010020561	Grey	No	
020	0902_MW095_210506	HDPE (no PTFE)	20 mL	00352010020390	Grey	No	
020	0902_MW095_210506	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076778	Purple	No	
020	0902_MW095_210506	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020010707	Red	Yes	
020	0902_MW095_210506	Clear Plastic Bottle - Natural	250 mL	00070121079298	Green	No	
021	0902_MW097_210505	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020011527	Red	Yes	
021	0902_MW097_210505	Clear Plastic Bottle - Natural	250 mL	00070121079361	Green	No	
021	0902_MW097_210505	HDPE (no PTFE)	20 mL	00352010020606	Grey	No	
021	0902_MW097_210505	HDPE (no PTFE)	20 mL	00352010020493	Grey	No	
021	0902_MW097_210505	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076981	Purple	No	
022	0902_MW098_210505	Clear Plastic Bottle - Natural	250 mL	00070121079344	Green	No	
022	0902_MW098_210505	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121003678	Purple	No	
022	0902_MW098_210505	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020011572	Red	Yes	
022	0902_MW098_210505	HDPE (no PTFE)	20 mL	00352010020585	Grey	No	
022	0902_MW098_210505	HDPE (no PTFE)	20 mL	00352010020485	Grey	No	
023	0902_SW005_210506	HDPE (no PTFE)	20 mL	00352010020418	Grey	No	
023	0902_SW005_210506	HDPE (no PTFE)	20 mL	00352010020216	Grey	No	
024	0902_SW008_210506	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076657	Purple	No	
024	0902_SW008_210506	Clear Plastic Bottle - Natural	250 mL	00070121079320	Green	No	
024	0902_SW008_210506	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020010845	Red	Yes	
024	0902_SW008_210506	HDPE (no PTFE)	20 mL	00352010020662	Grey	No	
024	0902_SW008_210506	HDPE (no PTFE)	20 mL	00352010020738	Grey	No	
025	0902_SW022_210505	HDPE (no PTFE)	20 mL	00352010020346	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 22447 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 5/5/21 1730	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

~~Free ice~~ / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments: S-2

025	0902_SW022_210505	HDPE (no PTFE)	20 mL	00352010020588	Grey	No	
025	0902_SW022_210505	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020017009	Red	Yes	
025	0902_SW022_210505	Clear Plastic Bottle - Natural	250 mL	00070121079338	Green	No	
025	0902_SW022_210505	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121077151	Purple	No	
026	0902_SW015_210505	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076978	Purple	No	
026	0902_SW015_210505	HDPE (no PTFE)	20 mL	00352010020173	Grey	No	
026	0902_SW015_210505	HDPE (no PTFE)	20 mL	00352010020341	Grey	No	
026	0902_SW015_210505	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020011513	Red	Yes	
026	0902_SW015_210505	Clear Plastic Bottle - Natural	250 mL	00070121079328	Green	No	
027	0902_SW018_210506	HDPE (no PTFE)	20 mL	00352010022315	Grey	No	
027	0902_SW018_210506	HDPE (no PTFE)	20 mL	00352010022429	Grey	No	
028	0902_SW007_210506	HDPE (no PTFE)	20 mL	00352010020386	Grey	No	
028	0902_SW007_210506	HDPE (no PTFE)	20 mL	00352010020481	Grey	No	
029	0902_SW009_210506	HDPE (no PTFE)	20 mL	00352010020734	Grey	No	
029	0902_SW009_210506	HDPE (no PTFE)	20 mL	00352010020747	Grey	No	
029	0902_SW009_210506	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076775	Purple	No	
029	0902_SW009_210506	Clear Plastic Bottle - Natural	250 mL	00070121079264	Green	No	
029	0902_SW009_210506	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020010684	Red	Yes	
030	0902_SW024_210505	HDPE (no PTFE)	20 mL	00352010020293	Grey	No	
030	0902_SW024_210505	HDPE (no PTFE)	20 mL	00352010020631	Grey	No	
031	0902_SW016_210505	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121003211	Purple	No	
031	0902_SW016_210505	HDPE (no PTFE)	20 mL	00352010020745	Grey	No	
031	0902_SW016_210505	HDPE (no PTFE)	20 mL	00352010020336	Grey	No	
031	0902_SW016_210505	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020011514	Red	Yes	
031	0902_SW016_210505	Clear Plastic Bottle - Natural	250 mL	00070121079346	Green	No	
032	0902_SW014_210506	HDPE (no PTFE)	20 mL	00352010020204	Grey	No	
032	0902_SW014_210506	HDPE (no PTFE)	20 mL	00352010020648	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 22447 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Batch 2

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 6/5/21 1730	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments: S-2

033	0902_SW035_210506	HDPE (no PTFE)	20 mL	00352010022399	Grey	No	
033	0902_SW035_210506	HDPE (no PTFE)	20 mL	00352010022373	Grey	No	
033	0902_SW035_210506	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076752	Purple	No	
033	0902_SW035_210506	HDPE (no PTFE)	20 mL	00352010022739	Grey	No	
033	0902_SW035_210506	HDPE (no PTFE)	20 mL	00352010022482	Grey	No	
033	0902_SW035_210506	Clear Plastic Bottle - Natural	250 mL	00070121079301	Green	No	
033	0902_SW035_210506	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020010692	Red	Yes	
034	0902_SW013_210506	HDPE (no PTFE)	20 mL	00352010020229	Grey	No	
034	0902_SW013_210506	HDPE (no PTFE)	20 mL	00352010020680	Grey	No	
034	0902_SW013_210506	HDPE (no PTFE)	20 mL	00352010020299	Grey	No	
034	0902_SW013_210506	HDPE (no PTFE)	20 mL	00352010020474	Grey	No	
046	0902_QC102_210506	HDPE (no PTFE)	20 mL	00352010020303	Grey	No	
046	0902_QC102_210506	HDPE (no PTFE)	20 mL	00352010020743	Grey	No	
047	0902_QC103_210506	HDPE (no PTFE)	20 mL	00352010020376	Grey	No	
047	0902_QC103_210506	HDPE (no PTFE)	20 mL	00352010020454	Grey	No	
048	0902_QC104_210506	HDPE (no PTFE)	20 mL	00352010022716	Grey	No	
048	0902_QC104_210506	HDPE (no PTFE)	20 mL	00352010022414	Grey	No	
049	0902_QC302_210505	HDPE (no PTFE)	20 mL	00352010020286	Grey	No	
049	0902_QC302_210505	HDPE (no PTFE)	20 mL	00352010020542	Grey	No	
050	0902_SW023_210506	HDPE (no PTFE)	20 mL	00352010022629	Grey	No	
050	0902_SW023_210506	Clear Plastic Bottle - Natural	250 mL	00070121079343	Green	No	
050	0902_SW023_210506	HDPE (no PTFE)	20 mL	00352010022432	Grey	No	
050	0902_SW023_210506	HDPE (no PTFE)	20 mL	00352010022327	Grey	No	
050	0902_SW023_210506	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020011576	Red	Yes	
050	0902_SW023_210506	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076697	Purple	No	
050	0902_SW023_210506	HDPE (no PTFE)	20 mL	00352010022653	Grey	No	

Total Bottle Count: ALS: 133, Non ALS: 0

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2117172**	Page	: 1 of 16
Amendment	: **2**		
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 07-May-2021 17:30
Order number	: 5.1	Date Analysis Commenced	: 08-May-2021
C-O-C number	: 22218	Issue Date	: 28-May-2021 11:37
Sampler	: MAT JENKINS, PRERANA YERDHALLI		
Site	: Richmond		
Quote number	: SY/139/19 v4_NSW_0902_PFASOMP		
No. of samples received	: 20		
No. of samples analysed	: 18		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X: Particular samples required dilution due to the presence of high level contaminants. LOR values have been adjusted accordingly.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EG020: Bromine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- Amendment (28/05/2021): This report has been amended following a change to the EP231X: PFAS result reported for all samples as per request from AECOM, reported results take from a secondary analysis to confirm results. PFAS results are consistent with the original reported results.
- Amendment (27/05/2021): This report has been amended as a result of a client request to change PFAS data for method code EP231, samples #9, 10.
- Amendment (25/05/2021):This report has been amended following the removal of incorrect sample descriptions. All analysis results are as per the previous report.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.
- EP231X-INJ: The direct injection LCMSMS method may be used where the sample matrix is not suitable for Solid Phase Extraction (e.g. significant particulate load) or where only a single sample container is received.

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW044_210507	0902_MW045_210507	0902_MW056_210507	0902_MW059_210507	0902_MW036_210507
				Sampling date / time	07-May-2021 15:02	07-May-2021 09:02	07-May-2021 16:11	07-May-2021 09:45	07-May-2021 08:24
					ES2117172-001	ES2117172-002	ES2117172-003	ES2117172-004	ES2117172-017
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	**2.96**	**0.20**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	**2.62**	**0.18**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		**0.04**	**0.07**	<0.02	**3.92**	**0.80**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	**0.12**	<0.01	**0.07**	**0.06**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**0.5**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.91**	**0.04**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	**3.98**	**0.14**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.52**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.03**	**0.01**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW044_210507	0902_MW045_210507	0902_MW056_210507	0902_MW059_210507	0902_MW036_210507
				Sampling date / time	07-May-2021 15:02	07-May-2021 09:02	07-May-2021 16:11	07-May-2021 09:45	07-May-2021 08:24
Compound	CAS Number	LOR	Unit		ES2117172-001	ES2117172-002	ES2117172-003	ES2117172-004	ES2117172-017
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.06**	**0.19**	<0.01	**15.5**	**1.43**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.06**	**0.19**	<0.01	**3.99**	**0.86**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.06**	**0.19**	<0.01	**12.9**	**1.25**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**96.5**	**101**	**103**	**101**	**99.8**
13C8-PFOA	----	0.02	%		**86.0**	**85.8**	**91.4**	**84.4**	**87.8**

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)				Sample ID	0902_QC303_210506	0902_QC304_210507	----	----	----
				Sampling date / time	06-May-2021 07:16	07-May-2021 07:17	----	----	----
Compound	CAS Number	LOR	Unit		ES2117172-015	ES2117172-016	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		----	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		----	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		----	<0.02	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		----	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		----	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		----	<0.02	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.10	µg/L		----	<0.10	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		----	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		----	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		----	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		----	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		----	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		----	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		----	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		----	<0.02	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC303_210506	0902_QC304_210507	----	----	----
				Sampling date / time	06-May-2021 07:16	07-May-2021 07:17	----	----	----
Compound	CAS Number	LOR	Unit		ES2117172-015	ES2117172-016	--------	--------	--------
					Result	Result	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		----	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		----	<0.05	----	----	----
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		----	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		----	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		----	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		----	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		----	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		----	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		----	<0.02	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC303_210506	0902_QC304_210507	----	----	----
				Sampling date / time	06-May-2021 07:16	07-May-2021 07:17	----	----	----
Compound	CAS Number	LOR	Unit		ES2117172-015	ES2117172-016	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		----	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		----	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		----	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		----	<0.05	----	----	----
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		----	<0.01	----	----	----

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)				Sample ID	0902_QC303_210506	0902_QC304_210507	----	----	----
				Sampling date / time	06-May-2021 07:16	07-May-2021 07:17	----	----	----
Compound	*CAS Number*	*LOR*	*Unit*		**ES2117172-015**	**ES2117172-016**	--------	--------	--------
					Result	Result	----	----	----
EP231P: PFAS Sums - Continued									
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**----**	<0.01	**----**	**----**	**----**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**----**	<0.01	**----**	**----**	**----**
Sum of PFAS	----	0.01	µg/L		<0.01	**----**	**----**	**----**	**----**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**----**	**----**	**----**	**----**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**----**	**----**	**----**	**----**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**101**	**----**	**----**	**----**	**----**
13C4-PFOS	----	0.02	%		**----**	**101**	**----**	**----**	**----**
13C8-PFOA	----	0.02	%		**86.5**	**----**	**----**	**----**	**----**
13C8-PFOA	----	0.02	%		**----**	**80.1**	**----**	**----**	**----**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	0902_SD020_210507	0902_SD019_210507	0902_SD011_210507	0902_SD030_210507	0902_QC107_210507
			Sampling date / time	07-May-2021 10:23	07-May-2021 10:45	07-May-2021 12:39	07-May-2021 12:39	07-May-2021 18:00
Compound	CAS Number	LOR	Unit	ES2117172-009	ES2117172-010	ES2117172-011	ES2117172-012	ES2117172-018
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**35.5**	**46.4**	**26.0**	**24.6**	**64.2**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	**0.0031**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	**0.0031**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	**0.0006**	**0.0021**	<0.0002	**0.0498**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	**0.0422**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0055**	**0.0036**	**0.0311**	<0.0002	**2.78**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	**0.0012**	<0.0002	**0.318**
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.005
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	**0.0067**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	**0.0146**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	**0.0146**
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	**0.0002**	<0.0002	<0.0002	**0.0493**
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	**0.494**
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	**0.0002**	<0.0002	**3.81**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	**0.0003**	<0.0002	**5.53**
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	**0.0003**	<0.0002	**3.95**
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	**0.417**
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	**0.117**
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	**0.121**
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0902_SD020_210507	0902_SD019_210507	0902_SD011_210507	0902_SD030_210507	0902_QC107_210507
				Sampling date / time	07-May-2021 10:23	07-May-2021 10:45	07-May-2021 12:39	07-May-2021 12:39	07-May-2021 18:00
Compound	CAS Number	LOR	Unit		ES2117172-009	ES2117172-010	ES2117172-011	ES2117172-012	ES2117172-018
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0025
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0025
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	**0.0899**
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0010
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0010
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0010
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	**0.0458**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	**5.22**
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	**0.323**
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0055**	**0.0044**	**0.0352**	<0.0002	**23.4**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0055**	**0.0042**	**0.0332**	<0.0002	**2.83**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0055**	**0.0044**	**0.0332**	<0.0002	**8.18**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**85.0**	**99.0**	**89.5**	**106**	**50.0**
13C8-PFOA	----	0.0002	%		**73.0**	**85.0**	**81.0**	**85.0**	**75.0**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	0902_SD001_210507	----	----	----	----
			Sampling date / time	07-May-2021 11:52	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2117172-019	--------	--------	--------	--------
				Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**46.0**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	**0.0012**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	**0.0006**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0135**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	**0.0086**	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**1.98**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	**0.0576**	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.002	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	**0.0035**	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	**0.0068**	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	**0.0051**	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	**0.0124**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	**0.112**	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	**1.10**	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	**1.22**	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	**0.770**	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	**0.159**	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	**0.0488**	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	**0.0251**	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0012	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0902_SD001_210507	----	----	----	----
				Sampling date / time	07-May-2021 11:52	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2117172-019	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0012	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0012	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		**0.0127**	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0005	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		**0.0158**	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		**1.81**	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		**0.0914**	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**7.45**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**1.99**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**3.85**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**78.0**	----	----	----	----
13C8-PFOA	----	0.0002	%		**78.5**	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0902_SW020_210507	0902_SW019_210507	0902_SW011_210507	0902_SW030_210507	0902_SW001_210507
			Sampling date / time	07-May-2021 10:22	07-May-2021 10:43	07-May-2021 07:59	07-May-2021 11:04	07-May-2021 12:08
Compound	CAS Number	LOR	Unit	ES2117172-005	ES2117172-006	ES2117172-007	ES2117172-008	ES2117172-020
				Result	Result	Result	Result	Result
EG020T: Total Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	**0.15**	----	----	----	----
Manganese	7439-96-5	0.001	mg/L	**0.088**	----	----	----	----
Iron	7439-89-6	0.05	mg/L	**0.44**	----	----	----	----
Bromine	7726-95-6	0.1	mg/L	**0.3**	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0.01	mg/L	**0.11**	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	14797-65-0	0.01	mg/L	**0.03**	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	0.01	mg/L	**0.78**	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	**0.81**	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Total Kjeldahl Nitrogen as N	----	0.1	mg/L	**1.9**	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser								
^ Total Nitrogen as N	----	0.1	mg/L	**2.7**	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser								
Total Phosphorus as P	----	0.01	mg/L	**0.28**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	**0.07**	<0.02	**0.40**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	**0.06**	<0.02	**0.34**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	**0.02**	**0.03**	**0.39**	**0.02**	**2.73**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	**0.04**	<0.02	**0.18**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.17**	**0.04**	**1.38**	**0.04**	**7.54**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**0.14**
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	**0.5**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	**0.04**	<0.02	**1.16**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW020_210507	0902_SW019_210507	0902_SW011_210507	0902_SW030_210507	0902_SW001_210507
				Sampling date / time	07-May-2021 10:22	07-May-2021 10:43	07-May-2021 07:59	07-May-2021 11:04	07-May-2021 12:08
Compound	CAS Number	LOR	Unit		ES2117172-005	ES2117172-006	ES2117172-007	ES2117172-008	ES2117172-020
					Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.13**	<0.02	**1.53**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.54**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.01**	<0.01	**0.04**	<0.01	**0.85**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.45**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.46**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.19**
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.08**
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	**0.27**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW020_210507	0902_SW019_210507	0902_SW011_210507	0902_SW030_210507	0902_SW001_210507
				Sampling date / time	07-May-2021 10:22	07-May-2021 10:43	07-May-2021 07:59	07-May-2021 11:04	07-May-2021 12:08
Compound	CAS Number	LOR	Unit		ES2117172-005	ES2117172-006	ES2117172-007	ES2117172-008	ES2117172-020
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	**0.42**
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.20**	**0.07**	**2.15**	**0.06**	**17.8**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.19**	**0.07**	**1.77**	**0.06**	**10.3**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.20**	**0.07**	**2.05**	**0.06**	**15.9**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**97.4**	**92.7**	**99.2**	**100**	**98.2**
13C8-PFOA	----	0.02	%		**85.2**	**86.5**	**88.5**	**88.1**	**86.8**

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: RINSATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2117172**		
Amendment	: **2**		
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Christopher.Redford@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 3
Order number	: 5.1	Quote number	: ES2021AECOMAU0008 (SY/139/19 v4_NSW_0902_PFASOMP)
C-O-C number	: 22218	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Richmond		
Sampler	: MAT JENKINS, PRERANA YERDHALLI		

Dates

Date Samples Received	: 07-May-2021 17:30	Issue Date	: 28-May-2021
Client Requested Due Date	: 14-May-2021	Scheduled Reporting Date	: **14-May-2021**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 0.2' C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 20 / 18

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Changed sample dates for Samples 001, 003 and 015 as per client.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2117172-009	07-May-2021 10:23	0902_SD020_210507	✓	✓
ES2117172-010	07-May-2021 10:45	0902_SD019_210507	✓	✓
ES2117172-011	07-May-2021 12:39	0902_SD011_210507	✓	✓
ES2117172-012	07-May-2021 12:39	0902_SD030_210507	✓	✓
ES2117172-018	07-May-2021 18:00	0902_QC107_210507	✓	✓
ES2117172-019	07-May-2021 11:52	0902_SD001_210507	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	(On Hold) WATER No analysis requested	WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - EP231X-INJ PFAS - Full Suite (28 analytes)	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
ES2117172-001	07-May-2021 15:02	0902_MW044_210507			✓		
ES2117172-002	07-May-2021 09:02	0902_MW045_210507			✓		
ES2117172-003	07-May-2021 16:11	0902_MW056_210507			✓		
ES2117172-004	07-May-2021 09:45	0902_MW059_210507			✓		
ES2117172-005	07-May-2021 10:22	0902_SW020_210507		✓	✓		✓
ES2117172-006	07-May-2021 10:43	0902_SW019_210507			✓		
ES2117172-007	07-May-2021 07:59	0902_SW011_210507			✓		
ES2117172-008	07-May-2021 11:04	0902_SW030_210507			✓		
ES2117172-013	07-May-2021 09:01	0902_QC105_210507	✓				
ES2117172-014	07-May-2021 09:12	0902_QC106_210507	✓				
ES2117172-015	06-May-2021 07:16	0902_QC303_210506			✓		
ES2117172-016	07-May-2021 07:17	0902_QC304_210507				✓	
ES2117172-017	07-May-2021 08:24	0902_MW036_210507			✓		
ES2117172-020	07-May-2021 12:08	0902_SW001_210507			✓		

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com

REGINA BALOGH

- *AU Certificate of Analysis - NATA (COA)	Email	regina.balogh@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	regina.balogh@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	regina.balogh@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	regina.balogh@aecom.com
- Chain of Custody (CoC) (COC)	Email	regina.balogh@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	regina.balogh@aecom.com
- EDI Format - XTab (XTAB)	Email	regina.balogh@aecom.com

CHAIN OF CUSTODY

ALS COC#: 22218 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 / ES2021AECOMAU0008
v4_NSW_0902_PFASOMP

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 7/5/21 1730	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW044_210507	Extra vol	04/05/2021 03:02 PM	Water	ALS: 4 Non ALS: 0	No			X		
002	0902_MW045_210507	Could not locate	07/05/2021 09:02 AM	Water	ALS: 2 Non ALS: 0	No			X		
003	0902_MW056_210507		03/05/2021 04:11 PM	Water	ALS: 4 Non ALS: 0	No			X		
004	0902_MW059_210507		07/05/2021 09:45 AM	Water	ALS: 4 Non ALS: 0	No			X		
005	0902_SW020_210507	Extra analytes	07/05/2021 10:22 AM	Water	ALS: 5 Non ALS: 0	No	X				
006	0902_SW019_210507		07/05/2021 10:43 AM	Water	ALS: 2 Non ALS: 0	No			X		
007	0902_SW011_210507		07/05/2021 07:59 AM	Water	ALS: 2 Non ALS: 0	No			X		
008	0902_SW030_210507		07/05/2021 11:04 AM	Water	ALS: 2 Non ALS: 0	No			X		
009	0902_SD020_210507		07/05/2021 10:23 AM	Soil	ALS: 0 Non ALS: 0	No		X			

Environmental Division
Sydney
Work Order Reference
ES2117172

Telephone : +61-2-8784 8555

CHAIN OF CUSTODY

ALS COC#: 22218 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 7/5/21 1730	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_SD019_210507		07/05/2021 10:45 AM	Soil	ALS: 0 Non ALS: 0	No		X			
011	0902_SD011_210507			Soil	ALS: 0 Non ALS: 0	No		X			
012	0902_SD030_210507			Soil	ALS: 0 Non ALS: 0	No		X			
013	0902_QC105_210507		07/05/2021 09:01 AM	Water	ALS: 2 Non ALS: 0	Yes			-		
014	0902_QC106_210507		07/05/2021 09:12 AM	Water	ALS: 2 Non ALS: 0	Yes			-		
015	0902_QC303_210506		07/05/2021 07:16 AM	Water	ALS: 2 Non ALS: 0	No			X		
016	0902_QC304_210507		07/05/2021 07:17 AM	Water	ALS: 2 Non ALS: 0	No			X		
017	0902_MW036_210507		07/05/2021 08:24 AM	Water	ALS: 2 Non ALS: 0	No			X		
018	0902_QC107_210507		07/05/2021 06:00 PM	Soil	ALS: 0 Non ALS: 0	No		X			

CHAIN OF CUSTODY

COC#: **22218** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 7/5/21 1730	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	All Analysis Water WATER	PFAS Soil SOIL	PFAS Waters WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0902_SD001_210507		07/05/2021 11:52 AM	Soil	ALS: 0 Non ALS: 0	No		X			
020	0902_SW001_210507		07/05/2021 12:08 PM	Water	ALS: 2 Non ALS: 0	No			X		

CHAIN OF CUSTODY

(ALS) COC#: 22218 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU0008

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 7/5/21 1730	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW044_210507	HDPE (no PTFE)	20 mL	00352010066534	Grey	No	
001	0902_MW044_210507	HDPE (no PTFE)	20 mL	00352010066508	Grey	No	
001	0902_MW044_210507	HDPE (no PTFE)	20 mL	00352010022574	Grey	No	
001	0902_MW044_210507	HDPE (no PTFE)	20 mL	00352010022532	Grey	No	
002	0902_MW045_210507	HDPE (no PTFE)	20 mL	00352010022428	Grey	No	
002	0902_MW045_210507	HDPE (no PTFE)	20 mL	00352010022359	Grey	No	
003	0902_MW056_210507	HDPE (no PTFE)	20 mL	00352010022251	Grey	No	
003	0902_MW056_210507	HDPE (no PTFE)	20 mL	00352010066424	Grey	No	
003	0902_MW056_210507	HDPE (no PTFE)	20 mL	00352010022802	Grey	No	
003	0902_MW056_210507	HDPE (no PTFE)	20 mL	00352010066574	Grey	No	
004	0902_MW059_210507	HDPE (no PTFE)	20 mL	00352010020519	Grey	No	
004	0902_MW059_210507	HDPE (no PTFE)	20 mL	00352010020656	Grey	No	
004	0902_MW059_210507	HDPE (no PTFE)	20 mL	00352010032514	Grey	No	
004	0902_MW059_210507	HDPE (no PTFE)	20 mL	00352010032559	Grey	No	
005	0902_SW020_210507	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020011482	Red	Yes	
005	0902_SW020_210507	Clear Plastic Bottle - Natural	250 mL	00070121079333	Green	No	
005	0902_SW020_210507	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100121076632	Purple	No	
005	0902_SW020_210507	HDPE (no PTFE)	20 mL	00352010032667	Grey	No	
005	0902_SW020_210507	HDPE (no PTFE)	20 mL	00352010032754	Grey	No	
006	0902_SW019_210507	HDPE (no PTFE)	20 mL	00352010066353	Grey	No	
006	0902_SW019_210507	HDPE (no PTFE)	20 mL	00352010066624	Grey	No	
007	0902_SW011_210507	HDPE (no PTFE)	20 mL	00352010022570	Grey	No	
007	0902_SW011_210507	HDPE (no PTFE)	20 mL	00352010022815	Grey	No	
008	0902_SW030_210507	HDPE (no PTFE)	20 mL	00352010066549	Grey	No	
008	0902_SW030_210507	HDPE (no PTFE)	20 mL	00352010066556	Grey	No	
013	0902_QC105_210507	HDPE (no PTFE)	20 mL	00352010022565	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 22218 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 7/5/21 1730	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Kurtis Wathen

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4_NSW_0902_PFASOMP / ES2021AECOMAU000 8

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

013	0902_QC105_210507	HDPE (no PTFE)	20 mL	00352010022481	Grey	No	
014	0902_QC106_210507	HDPE (no PTFE)	20 mL	00352010066373	Grey	No	
014	0902_QC106_210507	HDPE (no PTFE)	20 mL	00352010066514	Grey	No	
015	0902_QC303_210506	HDPE (no PTFE)	20 mL	00352010022407	Grey	No	
015	0902_QC303_210506	HDPE (no PTFE)	20 mL	00352010022388	Grey	No	
016	0902_QC304_210507	HDPE (no PTFE)	20 mL	00352010022775	Grey	No	
016	0902_QC304_210507	HDPE (no PTFE)	20 mL	00352010022681	Grey	No	
017	0902_MW036_210507	HDPE (no PTFE)	20 mL	00352010066472	Grey	No	
017	0902_MW036_210507	HDPE (no PTFE)	20 mL	00352010066522	Grey	No	
020	0902_SW001_210507	HDPE (no PTFE)	20 mL	00352010022664	Grey	No	
020	0902_SW001_210507	HDPE (no PTFE)	20 mL	00352010022710	Grey	No	

Total Bottle Count: ALS: 37, Non ALS: 0

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2117172**	Page	: 1 of 16
Amendment	: **2**		
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 07-May-2021
Order number	: 5.1	Date Analysis Commenced	: 08-May-2021
C-O-C number	: 22218	Issue Date	: 28-May-2021
Sampler	: MAT JENKINS, PRERANA YERDHALLI		
Site	: Richmond		
Quote number	: SY/139/19 v4_NSW_0902_PFASOMP		
No. of samples received	: 20		
No. of samples analysed	: 18		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 3675582)									
ES2117098-039	Anonymous	EA055: Moisture Content	----	0.1	%	52.2	51.4	1.5	0% - 20%
ES2117898-001	Anonymous	EA055: Moisture Content	----	0.1	%	16.7	17.7	6.0	0% - 50%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 3678285)									
ES2116239-095	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0024	0.0023	6.2	0% - 50%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	0.0005	0.0004	27.3	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0341	0.0314	8.2	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2116239-106	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	0.0002	0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	0.0005	0.0007	22.8	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0131	0.0153	15.6	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	0.0049	0.0053	7.5	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.323	0.360	10.8	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	0.0031	0.0028	10.7	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3678285)									
ES2116239-095	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0006	0.0006	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0003	0.0003	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3678285) - continued									
ES2116239-095	Anonymous	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2116239-106	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	0.0003	0.0003	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0015	0.0018	20.9	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	0.0003	0.0004	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0034	0.0036	4.6	0% - 50%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	0.0003	0.0004	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	0.0004	0.0005	28.2	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3678285)									
ES2116239-095	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2116239-106	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	0.0006	0.0009	35.6	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3678285)									
ES2116239-095	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2116239-106	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020T: Total Metals by ICP-MS (QC Lot: 3674667)									
ES2116331-094	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	0.0	No Limit
ES2117832-001	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	1.73	1.71	1.1	0% - 20%
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	0.55	0.49	11.8	0% - 20%
		EG020A-T: Iron	7439-89-6	0.05	mg/L	124	122	2.1	0% - 20%
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 3672362)									
ES2117037-031	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.13	0.11	13.5	0% - 50%
ES2117140-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	318	320	0.7	0% - 20%
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 3666910)									
ES2117186-002	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2117209-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 3672364)									
ES2117119-017	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.01	<0.01	0.0	No Limit
ES2117140-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.10	<0.10	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 3672361)									
ES2117122-003	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	209	205	2.2	0% - 20%
ES2117119-016	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.5	0.5	0.0	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 3672360)									
ES2117122-003	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	125	124	0.9	0% - 20%

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 3672360) - continued									
ES2117119-016	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.06	0.07	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 3678309)									
ES2117139-001	Anonymous	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2117139-004	Anonymous	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 3680563)									
ES2117089-001	Anonymous	EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	0.12	0.13	0.0	No Limit
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3678309)									
ES2117139-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2117139-004	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3678309) - continued									
ES2117139-004	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 3680563)									
ES2117089-001	Anonymous	EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	<0.10	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3678309)									
ES2117139-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2117139-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3678309) - continued									
ES2117139-004	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 3680563)									
ES2117089-001	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3678309)									
ES2117139-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2117139-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3678309) - continued									
ES2117139-004	Anonymous	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 3680563)									
ES2117089-001	Anonymous	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 3678309)									
ES2117139-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.06	0.10	50.0	0% - 50%
ES2117139-004	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 3680563)									
ES2117089-001	Anonymous	EP231X-INJ: Sum of PFAS	----	0.01	µg/L	0.19	0.20	5.1	0% - 20%
		EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	0.12	0.13	8.0	0% - 50%
		EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	0.16	0.17	6.1	0% - 50%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3678285)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	73.2	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	73.6	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	67.6	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.8	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	83.2	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	74.8	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3678285)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	80.0	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	80.0	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	74.8	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	76.0	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	81.2	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.0	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	76.0	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	78.4	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	77.2	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	76.4	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	72.4	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3678285)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	81.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	82.0	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	80.1	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	89.4	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	79.5	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.0	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	76.8	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3678285)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	84.4	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	68.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	73.6	65.0	137

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3678285) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	76.4	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG020T: Total Metals by ICP-MS (QCLot: 3674667)								
EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	96.7	82.0	120
EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	96.1	85.0	113
EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	98.1	85.0	117
EK055G: Ammonia as N by Discrete Analyser (QCLot: 3672362)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	94.6	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 3666910)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	104	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3672364)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	104	91.0	113
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3672361)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	10 mg/L	88.7	69.0	101
				<0.1	1 mg/L	105	70.0	118
				<0.1	5 mg/L	95.2	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3672360)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	90.6	71.0	101
				<0.01	0.442 mg/L	97.8	72.0	108
				<0.01	1 mg/L	94.2	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3678309)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	99.2	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	127	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	0.25 µg/L	96.4	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	128	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	102	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	127	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3680563)								
EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.5 µg/L	94.0	72.0	130
EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.5 µg/L	101	71.0	127
EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.02	µg/L	<0.02	0.5 µg/L	94.8	68.0	131
EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.5 µg/L	105	69.0	134
EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.5 µg/L	97.2	65.0	140
EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.5 µg/L	108	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3678309)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3678309) - continued								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	99.3	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	124	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	125	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	127	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	126	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	122	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	123	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	122	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	122	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3680563)								
EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.10	2.5 µg/L	105	73.0	129
EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.5 µg/L	107	72.0	129
EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.5 µg/L	108	72.0	129
EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.5 µg/L	104	72.0	130
EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.5 µg/L	107	71.0	133
EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.5 µg/L	108	69.0	130
EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.5 µg/L	106	71.0	129
EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.5 µg/L	112	69.0	133
EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.5 µg/L	108	72.0	134
EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.5 µg/L	109	65.0	144
EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	1.25 µg/L	120	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3678309)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	120	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	129	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	126	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	109	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	108	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	107	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3680563)								
EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.5 µg/L	112	67.0	137
EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	1.25 µg/L	125	68.0	141

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3680563) - continued								
EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	1.25 µg/L	113	68.4	127
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	1.25 µg/L	121	64.4	132
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	1.25 µg/L	110	60.2	125
EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.5 µg/L	110	65.0	136
EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.5 µg/L	100	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3678309)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	107	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	126	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	123	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	89.0	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3680563)								
EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.5 µg/L	106	63.0	143
EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.5 µg/L	102	64.0	140
EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.5 µg/L	110	67.0	138
EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.5 µg/L	90.8	62.7	135
EP231P: PFAS Sums (QCLot: 3680563)								
EP231X-INJ: Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
EP231X-INJ: Sum of PFHxS and PFOS	355-46-4/17 63-23-1	0.01	µg/L	<0.01	----	----	----	----
EP231X-INJ: Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3678285)							
ES2116239-095	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	74.0	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	86.0	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	88.8	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	89.6	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	# Not Determined	68.0	136

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3678285) - continued							
ES2116239-095	Anonymous	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	98.4	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3678285)							
ES2116239-095	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	85.9	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	88.0	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	81.6	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	78.8	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	92.4	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	78.4	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	93.6	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	79.6	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	81.6	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	74.4	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	85.4	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3678285)							
ES2116239-095	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	81.6	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	89.6	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	80.9	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	94.2	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	69.6	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	82.8	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	77.2	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3678285)							
ES2116239-095	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	82.4	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	108	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	67.6	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	69.6	69.2	143

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG020T: Total Metals by ICP-MS (QCLot: 3674667)							
ES2117172-005	0902_SW020_210507	EG020A-T: Manganese	7439-96-5	1 mg/L	98.8	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 3672362)							

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK055G: Ammonia as N by Discrete Analyser (QCLot: 3672362) - continued							
ES2117037-031	Anonymous	EK055G: Ammonia as N	7664-41-7	1 mg/L	101	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 3666910)							
ES2117186-002	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	113	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 3672364)							
ES2117119-017	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	103	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 3672361)							
ES2117119-017	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	93.6	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 3672360)							
ES2117119-017	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	97.6	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3678309)							
ES2117139-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	97.2	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	117	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	81.8	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	115	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	88.6	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	110	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 3680563)							
ES2117089-001	Anonymous	EP231X-INJ: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.5 µg/L	76.0	72.0	130
		EP231X-INJ: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.5 µg/L	77.4	71.0	127
		EP231X-INJ: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.5 µg/L	75.8	68.0	131
		EP231X-INJ: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.5 µg/L	88.2	69.0	134
		EP231X-INJ: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.5 µg/L	85.0	65.0	140
		EP231X-INJ: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.5 µg/L	90.0	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3678309)							
ES2117139-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	88.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	128	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	103	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	129	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	126	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	123	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	113	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	120	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	91.0	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	117	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	116	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3680563)							

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 3680563) - continued							
ES2117089-001	Anonymous	EP231X-INJ: Perfluorobutanoic acid (PFBA)	375-22-4	2.5 µg/L	82.7	73.0	129
		EP231X-INJ: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.5 µg/L	90.6	72.0	129
		EP231X-INJ: Perfluorohexanoic acid (PFHxA)	307-24-4	0.5 µg/L	88.6	72.0	129
		EP231X-INJ: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.5 µg/L	87.8	72.0	130
		EP231X-INJ: Perfluorooctanoic acid (PFOA)	335-67-1	0.5 µg/L	88.4	71.0	133
		EP231X-INJ: Perfluorononanoic acid (PFNA)	375-95-1	0.5 µg/L	86.0	69.0	130
		EP231X-INJ: Perfluorodecanoic acid (PFDA)	335-76-2	0.5 µg/L	89.4	71.0	129
		EP231X-INJ: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.5 µg/L	95.0	69.0	133
		EP231X-INJ: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.5 µg/L	94.0	72.0	134
		EP231X-INJ: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.5 µg/L	88.0	65.0	144
		EP231X-INJ: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	1.25 µg/L	99.4	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3678309)							
ES2117139-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	128	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	119	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	110	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	102	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	85.8	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	102	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 3680563)							
ES2117089-001	Anonymous	EP231X-INJ: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.5 µg/L	98.2	67.0	137
		EP231X-INJ: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	1.25 µg/L	97.2	68.0	141
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	1.25 µg/L	81.9	68.5	127
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	1.25 µg/L	92.9	64.4	132
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	1.25 µg/L	95.8	60.2	125
		EP231X-INJ: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.5 µg/L	85.6	65.0	136
		EP231X-INJ: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.5 µg/L	91.2	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3678309)							

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3678309) - continued							
ES2117139-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	88.2	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	127	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	112	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	86.8	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 3680563)							
ES2117089-001	Anonymous	EP231X-INJ: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.5 µg/L	83.8	63.0	143
		EP231X-INJ: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.5 µg/L	87.2	64.0	140
		EP231X-INJ: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.5 µg/L	83.8	67.0	138
		EP231X-INJ: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.5 µg/L	80.0	62.7	135

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2117172**	Page	: 1 of 9
Amendment	: **2**		
Client	: **AECOM Australia Pty Ltd**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 07-May-2021
Site	: Richmond	Issue Date	: 28-May-2021
Sampler	: MAT JENKINS, PRERANA YERDHALLI	No. of samples received	: 20
Order number	: 5.1	No. of samples analysed	: 18

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **Surrogate recovery outliers exist for all regular sample matrices - please see following pages for full details.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2116239--095	Anonymous	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Regular Sample Surrogates

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP231S: PFAS Surrogate	ES2117172-018	0902_QC107_210507	**13C4-PFOS**	----	50.0 %	60.0-120 %	**Recovery less than lower data quality objective**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)								
HDPE Soil Jar (EA055)								
0902_SD020_210507,	0902_SD019_210507,	**07-May-2021**	**----**	----	----	**13-May-2021**	21-May-2021	✓
0902_SD011_210507,	0902_SD030_210507,							
0902_QC107_210507,	0902_SD001_210507							
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X)								
0902_SD020_210507,	0902_SD019_210507,	**07-May-2021**	**14-May-2021**	03-Nov-2021	✓	**17-May-2021**	23-Jun-2021	✓
0902_SD011_210507,	0902_SD030_210507,							
0902_QC107_210507,	0902_SD001_210507							
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X)								
0902_SD020_210507,	0902_SD019_210507,	**07-May-2021**	**14-May-2021**	03-Nov-2021	✓	**17-May-2021**	23-Jun-2021	✓
0902_SD011_210507,	0902_SD030_210507,							
0902_QC107_210507,	0902_SD001_210507							

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0902_SD020_210507, 0902_SD019_210507, 0902_SD011_210507, 0902_SD030_210507, 0902_QC107_210507, 0902_SD001_210507	**07-May-2021**	**14-May-2021**	03-Nov-2021	✓	**17-May-2021**	23-Jun-2021	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0902_SD020_210507, 0902_SD019_210507, 0902_SD011_210507, 0902_SD030_210507, 0902_QC107_210507, 0902_SD001_210507	**07-May-2021**	**14-May-2021**	03-Nov-2021	✓	**17-May-2021**	23-Jun-2021	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0902_SD020_210507, 0902_SD019_210507, 0902_SD011_210507, 0902_SD030_210507, 0902_QC107_210507, 0902_SD001_210507	**07-May-2021**	**14-May-2021**	03-Nov-2021	✓	**17-May-2021**	23-Jun-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)							
0902_SW020_210507	**07-May-2021**	**13-May-2021**	03-Nov-2021	✓	**13-May-2021**	03-Nov-2021	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_SW020_210507	**07-May-2021**	**----**	----	----	**12-May-2021**	04-Jun-2021	✓
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G)							
0902_SW020_210507	**07-May-2021**	**----**	----	----	**08-May-2021**	09-May-2021	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_SW020_210507	**07-May-2021**	**----**	----	----	**12-May-2021**	04-Jun-2021	✓
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK061G)							
0902_SW020_210507	**07-May-2021**	**12-May-2021**	04-Jun-2021	✓	**12-May-2021**	04-Jun-2021	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_SW020_210507	**07-May-2021**	**12-May-2021**	04-Jun-2021	✓	**12-May-2021**	04-Jun-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_QC303_210506	**06-May-2021**	**15-May-2021**	02-Nov-2021	✓	**15-May-2021**	02-Nov-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW044_210507, 0902_MW045_210507, 0902_MW056_210507, 0902_MW059_210507, 0902_SW020_210507, 0902_SW019_210507, 0902_SW011_210507, 0902_SW030_210507, 0902_MW036_210507, 0902_SW001_210507	**07-May-2021**	**15-May-2021**	03-Nov-2021	✓	**15-May-2021**	03-Nov-2021	✓
HDPE (no PTFE) (EP231X-INJ)							
0902_QC304_210507	**07-May-2021**	**17-May-2021**	03-Nov-2021	✓	**17-May-2021**	03-Nov-2021	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0902_QC303_210506	**06-May-2021**	**15-May-2021**	02-Nov-2021	✓	**15-May-2021**	02-Nov-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW044_210507, 0902_MW045_210507, 0902_MW056_210507, 0902_MW059_210507, 0902_SW020_210507, 0902_SW019_210507, 0902_SW011_210507, 0902_SW030_210507, 0902_MW036_210507, 0902_SW001_210507	**07-May-2021**	**15-May-2021**	03-Nov-2021	✓	**15-May-2021**	03-Nov-2021	✓
HDPE (no PTFE) (EP231X-INJ)							
0902_QC304_210507	**07-May-2021**	**17-May-2021**	03-Nov-2021	✓	**17-May-2021**	03-Nov-2021	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0902_QC303_210506	**06-May-2021**	**15-May-2021**	02-Nov-2021	✓	**15-May-2021**	02-Nov-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW044_210507, 0902_MW045_210507, 0902_MW056_210507, 0902_MW059_210507, 0902_SW020_210507, 0902_SW019_210507, 0902_SW011_210507, 0902_SW030_210507, 0902_MW036_210507, 0902_SW001_210507	**07-May-2021**	**15-May-2021**	03-Nov-2021	✓	**15-May-2021**	03-Nov-2021	✓
HDPE (no PTFE) (EP231X-INJ)							
0902_QC304_210507	**07-May-2021**	**17-May-2021**	03-Nov-2021	✓	**17-May-2021**	03-Nov-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_QC303_210506	**06-May-2021**	**15-May-2021**	02-Nov-2021	✓	**15-May-2021**	02-Nov-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW044_210507, 0902_MW045_210507, 0902_MW056_210507, 0902_MW059_210507, 0902_SW020_210507, 0902_SW019_210507, 0902_SW011_210507, 0902_SW030_210507, 0902_MW036_210507, 0902_SW001_210507	**07-May-2021**	**15-May-2021**	03-Nov-2021	✓	**15-May-2021**	03-Nov-2021	✓
HDPE (no PTFE) (EP231X-INJ)							
0902_QC304_210507	**07-May-2021**	**17-May-2021**	03-Nov-2021	✓	**17-May-2021**	03-Nov-2021	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0902_QC303_210506	**06-May-2021**	**15-May-2021**	02-Nov-2021	✓	**15-May-2021**	02-Nov-2021	✓
HDPE (no PTFE) (EP231X)							
0902_MW044_210507, 0902_MW045_210507, 0902_MW056_210507, 0902_MW059_210507, 0902_SW020_210507, 0902_SW019_210507, 0902_SW011_210507, 0902_SW030_210507, 0902_MW036_210507, 0902_SW001_210507	**07-May-2021**	**15-May-2021**	03-Nov-2021	✓	**15-May-2021**	03-Nov-2021	✓
HDPE (no PTFE) (EP231X-INJ)							
0902_QC304_210507	**07-May-2021**	**17-May-2021**	03-Nov-2021	✓	**17-May-2021**	03-Nov-2021	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	17	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Ammonia as N by Discrete analyser	EK055G	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	17	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	7	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	10	20.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Ammonia as N by Discrete analyser	EK055G	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	12	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	3	15	20.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	18	16.67	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	12	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Method Blanks (MB) - Continued							
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	1	7	**14.29**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO3-. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X-INJ	WATER	In house: Direct injection analysis of fresh waters after dilution (1:1) with mobile phase solvent. Analysis by LC-Electrospray-MS-MS, Negative Mode using MRM. Where commercially available, isotopically labelled analogues of the target analytes are used as internal standards for quantification. Where a labelled analogue is not commercially available, the internal standard with similar chemistry and the closest retention time to the target is used for quantification. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
Preparation for PFAS in water.	EP231-PR	WATER	Method presumes direct injection without workup. Preparation includes addition of internal standard and surrogate, and filtration prior to analysis.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

REPORT OF ANALYSIS

Client	: AECOM AUSTRALIA PTY LTD	**Job No.**	: AECO03/210511
	LEVEL 21	**Quote No.**	: QT-02018
	420 GEORGE STREET	**Order No.**	: 60612562
		Date Received	: 11-MAY-2021
Attention	: GEOFF TREDINNICK	**Sampled By**	: CLIENT
Project Name	: 60612562		
Your Client Services Manager	: Danny Slee	**Phone**	: 02 9449 0169

Lab Reg No.	Sample Ref	Sample Description
N21/011801	0902_QC202_210506	SOIL 6-5-21

Lab Reg No.		N21/011801				
Date Sampled		06-MAY-2021				
	Units					Method
PFAS (per-and poly-fluoroalkyl substances)						
PFBA (375-22-4)	mg/kg	<0.02				NR70
PFPeA (2706-90-3)	mg/kg	<0.01				NR70
PFHxA (307-24-4)	mg/kg	0.014				NR70
PFHpA (375-85-9)	mg/kg	<0.01				NR70
PFOA (335-67-1)	mg/kg	<0.01				NR70
PFNA (375-95-1)	mg/kg	<0.01				NR70
PFDA (335-76-2)	mg/kg	<0.01				NR70
PFUdA (2058-94-8)	mg/kg	<0.01				NR70
PFDoA (307-55-1)	mg/kg	0.013				NR70
PFTrDA (72629-94-8)	mg/kg	<0.01				NR70
PFTeDA (376-06-7)	mg/kg	<0.01				NR70
PFHxDA (67905-19-5)	mg/kg	<0.01				NR70
PFODA (16517-11-6)	mg/kg	<0.04				NR70
FOUEA (70887-84-2)	mg/kg	<0.01				NR70
PFBS (375-73-5)	mg/kg	<0.01				NR70
PFPeS (2706-91-4)	mg/kg	<0.01				NR70
PFHxS (355-46-4)	mg/kg	0.056				NR70
PFHpS (375-92-8)	mg/kg	<0.01				NR70
PFOS (1763-23-1)	mg/kg	0.094				NR70
PFNS (68259-12-1)	mg/kg	<0.01				NR70
PFDS (335-77-3)	mg/kg	<0.01				NR70
PFOSA (754-91-6)	mg/kg	<0.01				NR70
N-MeFOSA (31506-32-8)	mg/kg	<0.01				NR70
N-EtFOSA (4151-50-2)	mg/kg	<0.01				NR70
N-MeFOSAA (2355-31-9)	mg/kg	<0.01				NR70
N-EtFOSAA(2991-50-6)	mg/kg	<0.01				NR70
N-MeFOSE (24448-09-7)	mg/kg	<0.02				NR70
N-EtFOSE (1691-99-2)	mg/kg	<0.02				NR70
4:2 FTS (757124-72-4)	mg/kg	<0.01				NR70
6:2 FTS (27619-97-2)	mg/kg	<0.01				NR70

REPORT OF ANALYSIS

Lab Reg No.		N21/011801				
Date Sampled		06-MAY-2021				
	Units					Method
PFAS (per-and poly-fluoroalkyl substances)						
8:2 FTS (39108-34-4)	mg/kg	<0.01				NR70
10:2 FTS (120226-60-0)	mg/kg	<0.02				NR70
8:2 diPAP (678-41-1)	mg/kg	<0.02				NR70
PFBA (Surrogate Recovery)	%	112				NR70
PFPeA (Surrogate Recovery)	%	107				NR70
PFHxA (Surrogate Recovery)	%	113				NR70
PFHpA (Surrogate Recovery)	%	116				NR70
PFOA (Surrogate Recovery)	%	117				NR70
PFNA (Surrogate Recovery)	%	97				NR70
PFDA (Surrogate Recovery)	%	108				NR70
PFUdA (Surrogate Recovery)	%	116				NR70
PFDoA (Surrogate Recovery)	%	113				NR70
PFTeDA (Surrogate Recovery)	%	108				NR70
PFHxDA (Surrogate Recovery)	%	105				NR70
FOUEA (Surrogate Recovery)	%	88				NR70
PFBS (Surrogate Recovery)	%	99				NR70
PFHxS (Surrogate Recovery)	%	112				NR70
PFOS (Surrogate Recovery)	%	113				NR70
PFOSA (Surrogate Recovery)	%	99				NR70
N-MeFOSA (Surrogate Recovery)	%	114				NR70
N-EtFOSA (Surrogate Recovery)	%	124				NR70
N-MeFOSAA (Surrogate Recovery)	%	99				NR70
N-EtFOSAA (Surrogate Recovery)	%	130				NR70
N-MeFOSE (Surrogate Recovery)	%	92				NR70
N-EtFOSE (Surrogate Recovery)	%	79				NR70
4:2 FTS (Surrogate Recovery)	%	102				NR70
6:2 FTS (Surrogate Recovery)	%	93				NR70
8:2 FTS (Surrogate Recovery)	%	108				NR70
8:2 diPAP (Surrogate Recovery)	%	126				NR70
Dates						
Date extracted		17-MAY-2021				
Date analysed		18-MAY-2021				

N21/011801
PFOS and PFHxS are quantified using a combined branched and linear standard,
linear and branched isomers are totalled for reporting.
All results corrected for labelled surrogate recoveries.

LOR values for sample N21/011801 were raised due to the low solid contentô in the sample.

REPORT OF ANALYSIS

Lab Reg No.		N21/011801				
Date Sampled		06-MAY-2021				
	Units					Method

Gabriela Saveluc, Analyst
Organics - NSW
Accreditation No. 198

18-MAY-2021

Lab Reg No.		N21/011801				
Date Sampled		06-MAY-2021				
	Units					Method
Trace Elements						
Total Solids	%	11.3				NT2_49
Dates						
Date extracted		13-MAY-2021				
Date analysed		14-MAY-2021				

Pankaj Barai, Analyst
Inorganics - NSW
Accreditation No. 198

18-MAY-2021

All results are expressed on a dry weight basis.

REPORT OF ANALYSIS

Client	: AECOM AUSTRALIA PTY LTD	**Job No.**	: AECO03/210511
	LEVEL 21	**Quote No.**	: QT-02018
	420 GEORGE STREET	**Order No.**	: 60612562
		Date Received	: 11-MAY-2021
Attention	: GEOFF TREDINNICK	**Sampled By**	: CLIENT
Project Name	: 60612562		
Your Client Services Manager	: Danny Slee	**Phone**	: 02 9449 0169

Lab Reg No.	Sample Ref	Sample Description
N21/011799	0902_QC200_210503	WATER 3-5-21
N21/011800	0902_QC201_210504	WATER 4-5-21
N21/011802	0902_QC203_210506	WATER 6-5-21
N21/011803	0902_QC204_210507	WATER 7-5-21

Lab Reg No.			N21/011799	N21/011800	N21/011802	N21/011803	
Date Sampled			03-MAY-2021	04-MAY-2021	06-MAY-2021	07-MAY-2021	
		Units					Method
PFAS (per-and poly-fluoroalkyl substances)							
PFBA (375-22-4)		ug/L	10	<0.05	0.12	<0.05	NR70
PFPeA (2706-90-3)		ug/L	16	0.059	0.037	0.027	NR70
PFHxA (307-24-4)		ug/L	68	0.27	0.13	0.080	NR70
PFHpA (375-85-9)		ug/L	6.6	0.039	0.014	0.015	NR70
PFOA (335-67-1)		ug/L	14	0.075	0.015	0.024	NR70
PFNA (375-95-1)		ug/L	0.061	<0.01	<0.01	<0.01	NR70
PFDA (335-76-2)		ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFUdA (2058-94-8)		ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFDoA (307-55-1)		ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFTrDA (72629-94-8)		ug/L	<0.02	<0.02	<0.02	<0.02	NR70
PFTeDA (376-06-7)		ug/L	<0.02	<0.02	<0.02	<0.02	NR70
PFHxDA (67905-19-5)		ug/L	<0.02	<0.02	<0.02	<0.02	NR70
PFODA (16517-11-6)		ug/L	<0.05	<0.05	<0.05	<0.05	NR70
FOUEA (70887-84-2)		ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFDS (335-77-3)		ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFPeS (2706-91-4)		ug/L	39	0.21	0.53	0.041	NR70
PFHxS (355-46-4)		ug/L	250	1.9	4.7	0.33	NR70
PFHpS (375-92-8)		ug/L	11	0.045	0.020	0.019	NR70
PFOS (1763-23-1)		ug/L	83	0.40	0.13	1.3	NR70
PFNS (68259-12-1)		ug/L	0.023	<0.01	<0.01	<0.01	NR70
PFBS (375-73-5)		ug/L	46	0.18	0.52	0.054	NR70
PFOSA (754-91-6)		ug/L	0.019	<0.01	<0.01	<0.01	NR70
N-MeFOSA (31506-32-8)		ug/L	<0.02	<0.02	<0.02	<0.02	NR70
N-EtFOSA (4151-50-2)		ug/L	<0.02	<0.02	<0.02	<0.02	NR70
N-MeFOSAA (2355-31-9)		ug/L	<0.01	<0.01	<0.01	<0.01	NR70
N-EtFOSAA(2991-50-6)		ug/L	<0.01	<0.01	<0.01	<0.01	NR70
N-MeFOSE (24448-09-7)		ug/L	<0.05	<0.05	<0.05	<0.05	NR70

REPORT OF ANALYSIS

Lab Reg No.			N21/011799	N21/011800	N21/011802	N21/011803	
Date Sampled			03-MAY-2021	04-MAY-2021	06-MAY-2021	07-MAY-2021	
		Units					Method
PFAS (per-and poly-fluoroalkyl substances)							
N-EtFOSE (1691-99-2)		ug/L	<0.05	<0.05	<0.05	<0.05	NR70
4:2 FTS (757124-72-4)		ug/L	<0.01	<0.01	<0.01	<0.01	NR70
6:2 FTS (27619-97-2)		ug/L	0.084	<0.01	<0.01	0.022	NR70
8:2 FTS (39108-34-4)		ug/L	<0.01	<0.01	<0.01	<0.01	NR70
10:2 FTS (120226-60-0)		ug/L	<0.01	<0.01	<0.01	<0.01	NR70
8:2 diPAP (678-41-1)		ug/L	<0.02	<0.02	<0.02	<0.02	NR70
PFBA (Surrogate Recovery)		%	100	99	97	107	NR70
PFPeA (Surrogate Recovery)		%	104	95	95	100	NR70
PFHxA (Surrogate Recovery)		%	101	91	96	100	NR70
PFHpA (Surrogate Recovery)		%	110	100	101	96	NR70
PFOA (Surrogate Recovery)		%	106	103	98	106	NR70
PFNA (Surrogate Recovery)		%	103	87	72	88	NR70
PFDA (Surrogate Recovery)		%	101	76	72	72	NR70
PFUdA (Surrogate Recovery)		%	109	90	69	73	NR70
PFDoA (Surrogate Recovery)		%	107	78	62	62	NR70
PFTeDA (Surrogate Recovery)		%	102	78	63	66	NR70
PFHxDA (Surrogate Recovery)		%	97	81	80	74	NR70
FOUEA (Surrogate Recovery)		%	106	67	67	64	NR70
PFBS (Surrogate Recovery)		%	100	90	89	89	NR70
PFHxS (Surrogate Recovery)		%	101	97	92	93	NR70
PFOS (Surrogate Recovery)		%	94	84	88	82	NR70
PFOSA (Surrogate Recovery)		%	108	65	49	57	NR70
N-MeFOSA (Surrogate Recovery)		%	111	37	42	38	NR70
N-EtFOSA (Surrogate Recovery)		%	102	46	52	30	NR70
N-MeFOSAA (Surrogate Recovery)		%	98	71	54	62	NR70
N-EtFOSAA (Surrogate Recovery)		%	111	67	64	63	NR70
N-MeFOSE (Surrogate Recovery)		%	111	40	37	32	NR70
N-EtFOSE (Surrogate Recovery)		%	111	45	62	73	NR70
4:2 FTS (Surrogate Recovery)		%	84	64	83	81	NR70
6:2 FTS (Surrogate Recovery)		%	98	76	79	81	NR70
8:2 FTS (Surrogate Recovery)		%	79	78	57	72	NR70
8:2 diPAP (Surrogate Recovery)		%	123	134	129	146	NR70
Dates							
Date extracted			17-MAY-2021	17-MAY-2021	17-MAY-2021	17-MAY-2021	
Date analysed			18-MAY-2021	18-MAY-2021	18-MAY-2021	18-MAY-2021	

N21/011799
to
N21/011804

PFOS and PFHxS are quantified using a combined branched and linear standard,
linear and branched isomers are totalled for reporting.
All results corrected for labelled surrogate recoveries.

Selected PFAS surrogate recoveries are biased due to matrix effects.ô
Surrogate recoveries low for selected analytes - PFAS LORs not raised since S/N >10.

Gabriela Saveluc, Analyst
Organics - NSW
Accreditation No. 198

18-MAY-2021

REPORT OF ANALYSIS

Report No. RN1314562

Client	: AECOM AUSTRALIA PTY LTD	**Job No.**	: AECO03/210511
	LEVEL 21	**Quote No.**	: QT-02018
	420 GEORGE STREET	**Order No.**	: 60612562
		Date Received	: 11-MAY-2021
Attention	: GEOFF TREDINNICK	**Sampled By**	: CLIENT
Project Name	: 60612562		
Your Client Services Manager	: Danny Slee	**Phone**	: 02 9449 0169

Lab Reg No.	Sample Ref	Sample Description
N21/011804	0902_QC205_210507	WATER 7-5-21

Lab Reg No.			N21/011804				
Date Sampled			07-MAY-2021				
		Units					Method
PFAS (per-and poly-fluoroalkyl substances)							
PFBA (375-22-4)		ug/L	<0.05				NR70
PFPeA (2706-90-3)		ug/L	<0.02				NR70
PFHxA (307-24-4)		ug/L	<0.01				NR70
PFHpA (375-85-9)		ug/L	<0.01				NR70
PFOA (335-67-1)		ug/L	<0.01				NR70
PFNA (375-95-1)		ug/L	<0.01				NR70
PFDA (335-76-2)		ug/L	<0.01				NR70
PFUdA (2058-94-8)		ug/L	<0.01				NR70
PFDoA (307-55-1)		ug/L	<0.01				NR70
PFTrDA (72629-94-8)		ug/L	<0.02				NR70
PFTeDA (376-06-7)		ug/L	<0.02				NR70
PFHxDA (67905-19-5)		ug/L	<0.02				NR70
PFODA (16517-11-6)		ug/L	<0.05				NR70
FOUEA (70887-84-2)		ug/L	<0.01				NR70
PFDS (335-77-3)		ug/L	<0.01				NR70
PFPeS (2706-91-4)		ug/L	<0.01				NR70
PFHxS (355-46-4)		ug/L	0.038				NR70
PFHpS (375-92-8)		ug/L	<0.01				NR70
PFOS (1763-23-1)		ug/L	0.038				NR70
PFNS (68259-12-1)		ug/L	<0.01				NR70
PFBS (375-73-5)		ug/L	0.010				NR70
PFOSA (754-91-6)		ug/L	<0.01				NR70
N-MeFOSA (31506-32-8)		ug/L	<0.02				NR70
N-EtFOSA (4151-50-2)		ug/L	<0.02				NR70
N-MeFOSAA (2355-31-9)		ug/L	<0.01				NR70
N-EtFOSAA(2991-50-6)		ug/L	<0.01				NR70
N-MeFOSE (24448-09-7)		ug/L	<0.05				NR70
N-EtFOSE (1691-99-2)		ug/L	<0.05				NR70
4:2 FTS (757124-72-4)		ug/L	<0.01				NR70
6:2 FTS (27619-97-2)		ug/L	<0.01				NR70

REPORT OF ANALYSIS

Lab Reg No.			N21/011804				
Date Sampled			07-MAY-2021				
		Units					Method
PFAS (per-and poly-fluoroalkyl substances)							
8:2 FTS (39108-34-4)		ug/L	<0.01				NR70
10:2 FTS (120226-60-0)		ug/L	<0.01				NR70
8:2 diPAP (678-41-1)		ug/L	<0.02				NR70
PFBA (Surrogate Recovery)		%	100				NR70
PFPeA (Surrogate Recovery)		%	92				NR70
PFHxA (Surrogate Recovery)		%	92				NR70
PFHpA (Surrogate Recovery)		%	94				NR70
PFOA (Surrogate Recovery)		%	99				NR70
PFNA (Surrogate Recovery)		%	112				NR70
PFDA (Surrogate Recovery)		%	109				NR70
PFUdA (Surrogate Recovery)		%	115				NR70
PFDoA (Surrogate Recovery)		%	101				NR70
PFTeDA (Surrogate Recovery)		%	118				NR70
PFHxDA (Surrogate Recovery)		%	82				NR70
FOUEA (Surrogate Recovery)		%	71				NR70
PFBS (Surrogate Recovery)		%	81				NR70
PFHxS (Surrogate Recovery)		%	87				NR70
PFOS (Surrogate Recovery)		%	111				NR70
PFOSA (Surrogate Recovery)		%	89				NR70
N-MeFOSA (Surrogate Recovery)		%	48				NR70
N-EtFOSA (Surrogate Recovery)		%	61				NR70
N-MeFOSAA (Surrogate Recovery)		%	98				NR70
N-EtFOSAA (Surrogate Recovery)		%	104				NR70
N-MeFOSE (Surrogate Recovery)		%	59				NR70
N-EtFOSE (Surrogate Recovery)		%	55				NR70
4:2 FTS (Surrogate Recovery)		%	68				NR70
6:2 FTS (Surrogate Recovery)		%	71				NR70
8:2 FTS (Surrogate Recovery)		%	80				NR70
8:2 diPAP (Surrogate Recovery)		%	128				NR70
Dates							
Date extracted			17-MAY-2021				
Date analysed			18-MAY-2021				

Gabriela Saveluc, Analyst
Organics - NSW
Accreditation No. 198

18-MAY-2021

REPORT OF ANALYSIS

Accredited for compliance with ISO/IEC 17025 - Testing.
This report shall not be reproduced except in full.
Results relate only to the sample(s) as received and tested.

This Report supersedes reports: *RN1314558*

Measurement Uncertainty is available upon request.
Chemical Accreditation 198: 105 Delhi Road, North Ryde, NSW, 2113

Australian Government
Department of Industry, Science, Energy and Resources

National Measurement Institute

SAMPLE RECEIPT NOTIFICATION

CUSTOMER DETAILS

Attention: GEOFF TREDINNICK

Customer: AECOM AUSTRALIA PTY LTD

Address: LEVEL 21
SYDNEY NSW 2000

Email: Geoff.Tredinnick@aecom.com

Telephone:

Fax:

LABORATORY DETAILS

Lab: National Measurement Institute

Contact: Susanne Neuman

Address: 105 Delhi Road, North Ryde, NSW
NSW 2113

Email: Susanne.Neuman@measurement.gov.au

Telephone: 02 9449 0181

Fax:

SAMPLE DETAILS

NMI Job Name: **AECO03/210511**

Total No. of Samples: **8**

LRNs	Estimated Report Date	Customer Sample ID	Lab Sample Description
N21/011799	18-MAY-2021	0902_QC200_210503	WATER 3-5-21
N21/011800	18-MAY-2021	0902_QC201_210504	WATER 4-5-21
N21/011801	18-MAY-2021	0902_QC202_210506	SOIL 6-5-21
N21/011802	18-MAY-2021	0902_QC203_210506	WATER 6-5-21
N21/011803	18-MAY-2021	0902_QC204_210507	WATER 7-5-21
N21/011804	18-MAY-2021	0902_QC205_210507	WATER 7-5-21
N21/011805	18-MAY-2021	0902_QC206_210507	WATER 7-5-21
N21/011806	18-MAY-2021	0902_QC207_210507	WATER 7-5-21

SAMPLE RECEIVED CONDITION

Date samples received:	11-MAY-2021
Sample received in good order:	Yes
NMI Quotation no. provided:	
Client purchase order number:	60612562
Temperature of samples:	Chilled
Comments:	
Mode of Delivery:	Courier

Additional Terms and Conditions

Incomplete / unclear information about samples or required testing will delay the start of the analysis work

If you require your Purchase Order (PO) number to be included on our invoice, please provide the number during sample submission and before the completion of work to avoid unnecessary delays and/or additional processing/handling fees.

The lodgement of an order or receipt of samples for NMI services referenced in this Sample Receipt Notification constitutes an acceptence of the current version of NMI Terms and Conditions or other applicable Terms referenced in the NMI Quotation. NMI Terms and Conditions are available on the web at https://www.industry.gov.au/client-services/testing-and-analysis-services/chemical-and-biological-analysis-services-terms-and-conditions

Australian Government

National Measurement Institute

QUALITY ASSURANCE REPORT

Client: AECOM AUSTRALIA PTY LTD

NMI QA Report No: AECO03/210511 **Sample Matrix:** Liquid

Analyte	Method	LOR	Blank	Sample Duplicates			Recoveries	
				Sample	Duplicate	RPD	LCS	Matrix Spike
		ug/L	ug/L	ug/L	ug/L	%	%	%
PFBA (375-22-4)	NR70	0.05	<0.05	NA	NA	NA	112	NA
PFPeA (2706-90-3)	NR70	0.02	<0.02	NA	NA	NA	96	NA
PFHxA (307-24-4)	NR70	0.01	<0.01	NA	NA	NA	96	NA
PFHpA (375-85-9)	NR70	0.01	<0.01	NA	NA	NA	91	NA
PFOA (335-67-1)	NR70	0.01	<0.01	NA	NA	NA	100	NA
PFNA (375-95-1)	NR70	0.01	<0.01	NA	NA	NA	96	NA
PFDA (335-76-2)	NR70	0.01	<0.01	NA	NA	NA	108	NA
PFUdA (2058-94-8)	NR70	0.01	<0.01	NA	NA	NA	102	NA
PFDoA (307-55-1)	NR70	0.01	<0.01	NA	NA	NA	95	NA
PFTrDA (72629-94-8)	NR70	0.02	<0.02	NA	NA	NA	95	NA
PFTeDA (376-06-7)	NR70	0.02	<0.02	NA	NA	NA	110	NA
PFHxDA (67905-19-5)	NR70	0.02	<0.02	NA	NA	NA	112	NA
PFODA (16517-11-6)	NR70	0.05	<0.05	NA	NA	NA	120	NA
FOUEA (70887-84-2)	NR70	0.01	<0.01	NA	NA	NA	103	NA
PFBS (375-73-5)	NR70	0.01	<0.01	NA	NA	NA	108	NA
PFPeS (2706-91-4)	NR70	0.01	<0.01	NA	NA	NA	106	NA
PFHxS (355-46-4)	NR70	0.01	<0.01	NA	NA	NA	101	NA
PFHpS (375-92-8)	NR70	0.01	<0.01	NA	NA	NA	100	NA
PFOS (1763-23-1)	NR70	0.02	<0.02	NA	NA	NA	128	NA
PFNS (68259-12-1)	NR70	0.01	<0.01	NA	NA	NA	100	NA
PFDS (335-77-3)	NR70	0.01	<0.01	NA	NA	NA	102	NA
PFOSA (754-91-6)	NR70	0.01	<0.01	NA	NA	NA	102	NA
N-MeFOSA (31506-32-8)	NR70	0.02	<0.02	NA	NA	NA	114	NA
N-EtFOSA (4151-50-2)	NR70	0.02	<0.02	NA	NA	NA	89	NA
N-MeFOSAA (2355-31-9)	NR70	0.01	<0.01	NA	NA	NA	94	NA
N-EtFOSAA(2991-50-6)	NR70	0.01	<0.01	NA	NA	NA	90	NA
N-MeFOSE (24448-09-7)	NR70	0.05	<0.05	NA	NA	NA	102	NA
N-EtFOSE (1691-99-2)	NR70	0.05	<0.05	NA	NA	NA	117	NA
4:2 FTS (757124-72-4)	NR70	0.01	<0.01	NA	NA	NA	108	NA
6:2 FTS (27619-97-2)	NR70	0.01	<0.01	NA	NA	NA	101	NA
8:2 FTS (39108-34-4)	NR70	0.01	<0.01	NA	NA	NA	112	NA
10:2 FTS (120226-60-0)	NR70	0.01	<0.01	NA	NA	NA	111	NA
8:2 diPAP (678-41-1)	NR70	0.02	<0.02	NA	NA	NA	102	NA

Results expressed in percentage (%) or ug/L wherever appropriate.
Acceptable Spike recovery is 50-150%.
Maximum acceptable RPDs on spikes and duplicates is 40%.
'NA ' = Not Applicable.
RPD= Relative Percentage Difference.

Signed:

Danny Slee
Organics Manager, NMI-North Ryde

Date: **18/05/2021**

Australian Government

National Measurement Institute

QUALITY ASSURANCE REPORT

Client: AECOM AUSTRALIA PTY LTD

NMI QA Report No: AECO03/210511 **Sample Matrix:** Solid

Analyte	Method	LOR	Blank	Sample Duplicates			Recoveries	
				Sample	Duplicate	RPD	LCS	Matrix Spike
		mg/kg	mg/kg	mg/kg	mg/kg	%	%	%
PFBA (375-22-4)	NR70	0.01	<0.01	NA	NA	NA	109	NA
PFPeA (2706-90-3)	NR70	0.005	<0.005	NA	NA	NA	104	NA
PFHxA (307-24-4)	NR70	0.005	<0.005	NA	NA	NA	105	NA
PFHpA (375-85-9)	NR70	0.005	<0.005	NA	NA	NA	104	NA
PFOA (335-67-1)	NR70	0.005	<0.005	NA	NA	NA	104	NA
PFNA (375-95-1)	NR70	0.005	<0.005	NA	NA	NA	109	NA
PFDA (335-76-2)	NR70	0.005	<0.005	NA	NA	NA	98	NA
PFUdA (2058-94-8)	NR70	0.005	<0.005	NA	NA	NA	103	NA
PFDoA (307-55-1)	NR70	0.005	<0.005	NA	NA	NA	100	NA
PFTrDA (72629-94-8)	NR70	0.005	<0.005	NA	NA	NA	98	NA
PFTeDA (376-06-7)	NR70	0.005	<0.005	NA	NA	NA	108	NA
PFHxDA (67905-19-5)	NR70	0.005	<0.005	NA	NA	NA	111	NA
PFODA (16517-11-6)	NR70	0.02	<0.02	NA	NA	NA	75	NA
FOUEA (70887-84-2)	NR70	0.005	<0.005	NA	NA	NA	117	NA
PFBS (375-73-5)	NR70	0.005	<0.005	NA	NA	NA	110	NA
PFPeS (2706-91-4)	NR70	0.005	<0.005	NA	NA	NA	110	NA
PFHxS (355-46-4)	NR70	0.005	<0.005	NA	NA	NA	108	NA
PFHpS (375-92-8)	NR70	0.005	<0.005	NA	NA	NA	105	NA
PFOS (1763-23-1)	NR70	0.005	<0.005	NA	NA	NA	120	NA
PFNS (68259-12-1)	NR70	0.005	<0.005	NA	NA	NA	104	NA
PFDS (335-77-3)	NR70	0.005	<0.005	NA	NA	NA	103	NA
PFOSA (754-91-6)	NR70	0.005	<0.005	NA	NA	NA	94	NA
N-MeFOSA (31506-32-8)	NR70	0.005	<0.005	NA	NA	NA	121	NA
N-EtFOSA (4151-50-2)	NR70	0.005	<0.005	NA	NA	NA	104	NA
N-MeFOSAA (2355-31-9)	NR70	0.005	<0.005	NA	NA	NA	115	NA
N-EtFOSAA(2991-50-6)	NR70	0.005	<0.005	NA	NA	NA	113	NA
N-MeFOSE (24448-09-7)	NR70	0.01	<0.01	NA	NA	NA	93	NA
N-EtFOSE (1691-99-2)	NR70	0.01	<0.01	NA	NA	NA	106	NA
4:2 FTS (757124-72-4)	NR70	0.005	<0.005	NA	NA	NA	106	NA
6:2 FTS (27619-97-2)	NR70	0.005	<0.005	NA	NA	NA	100	NA
8:2 FTS (39108-34-4)	NR70	0.005	<0.005	NA	NA	NA	117	NA
10:2 FTS (120226-60-0)	NR70	0.01	<0.01	NA	NA	NA	112	NA
8:2 diPAP (678-41-1)	NR70	0.01	<0.01	NA	NA	NA	103	NA

Results expressed in percentage (%) or mg/kg wherever appropriate.
Acceptable Spike recovery is 50-150%.
Maximum acceptable RPDs on spikes and duplicates is 40%.
'NA ' = Not Applicable.
RPD= Relative Percentage Difference.

Signed:

Danny Slee
Organics Manager, NMI-North Ryde

Date: **18/05/2021**

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18/5

ANZ

FQM - Generic Chain of Custody Form

AECOM

Q4AN(EV)-007-FM1

CONSULTANT: AECOM	ADDRESS / OFFICE:	SAMPLER: PY + K.W	Destination Laboratory
PROJECT MANAGER (PM): ~~DW~~ GT	SITE: GSTC	MOBILE: 0438 429 598 PHONE: 0488 214 697	NMI
PROJECT NUMBER & TASK CODE: ~~80000384~~ 60612562	P.O. NO.:	EMAIL REPORT TO:	
RESULTS REQUIRED (Date): 5 DAYS	QUOTE NO.: SY/139/19		

ANALYSIS REQUIRED including SUITES (note - suite codes must be listed to attract suite prices)

FOR LABORATORY USE ONLY
COOLER SEAL (circle appropriate)
Intact: Yes No N/A
SAMPLE TEMPERATURE
CHILLED: Yes No

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

Notes: e.g. Highly contaminated samples e.g. "High PAHs expected". Extra volume for QC or trace LORs etc.

ALS ID	SAMPLE ID	MATRIX	DATE	Time	CONTAINER INFORMATION Type / Code	Total bottles	PFAS	HOLD
	~~QC200-210~~							
	0902-QC200-210503	W	3-5-21		2 x PFAS	2	N21/011799	
	0902-QC201-210504	W	4-5-21		2 x PFAS	2	N21/011800	
	0902-QC202-210506	Soil	6-5-21		PFAS JAR	1	N21/011801	
	0902-QC203-210506	W	6-5-21		2 x PFAS	2	N21/011802	
	0902-QC204-210507	W	7-5-21		↓	2	N21/011803	
	0902-QC205-210507	W	7-5-21		↓	2	N21/011804	
	0902-QC206-210507	W	7-5-21		↓	2	N21/011805	X
	0902-QC207-210507	W	7-5-21		↓	2	N21/011806	X

RECEIVED
11 MAY 2021
BY: AO 10:30

RELINQUISHED BY:		RECEIVED BY		RECEIVED BY		METHOD OF SHIPMENT
Name: K.W	Date:	Name:	Date:	Name:	Date:	Con' Note No:
Of:	Time:	Of:	Time:	Of:	Time:	Transport Co:

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic;
F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag. **Soil Container Codes**: Jar = Unpreserved glass jar

COC Page 1 of 1

Prepared for
Department of Defence
ABN: 68706814312

AECOM

Sampling Event Factual Report, November 2021

PFAS OMP - RAAF Base Richmond

29-Apr-2022
RAAF Base Richmond
Doc No. 20220429_OMP002_RAAF Richmond_Sampling Event Factual Report_Rev 0

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Delivering a better world

Sampling Event Factual Report, November 2021

PFAS OMP - RAAF Base Richmond

Client: Department of Defence

ABN: 68706814312

Prepared by

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List of Abbreviations

Abbreviations	Term
ADWG	Australian Drinking Water Guidelines
AECOM	AECOM Australia Pty Ltd
AHD	Australian Height Datum
ASC NEPM	Assessment of Site Contamination National Environment Protection
CSM	Conceptual Site Model
Defence	Department of Defence
DO	Dissolved Oxygen
DoH	Department of Health
DQI	Data Quality Indicator
DQO	Data Quality Objective
EC	Electrical conductivity
FFTG	Former Fire Training Ground
HEPA	Heads of Environment Protection Authority
LOR	Limit of Reporting
MW	Monitoring Well
NEMP	National Environmental Management Plan
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OMP	Ongoing Monitoring Program
ORP	Oxidation Reduction Potential
PFAS	Per- and poly-fluoroalkyl substances
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control
RAAF	Royal Australian Air Force
RPD	Relative Percentage Difference
SAQP	Sample and Analysis Quality Plan
SW	Surface Water
SWL	Standing Water Level

List of Units

Units	Term
g	Grams
km	Kilometre
L	Litres
m	Metre
mbgl	Metres below ground level
m btoc	Metres below top of casing
mg/kg	Milligrams per kilogram
µg/L	Micrograms per Litre

1.0 Introduction

1.1 General

AECOM Australia Pty Ltd (AECOM) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Program at the RAAF Base Richmond (the 'Site') in the NSW and Jervis Bay Region. The location of the Site and Management Areas are shown in **Figure 1** in **Appendix A**.

The Ongoing Monitoring Plan (OMP) (Defence, 2019a) for the Site outlines the requirement to complete biannual groundwater, surface water and sediment sampling.

Following each sampling event, a sampling event factual report is prepared. Annual interpretative reports will be prepared following the completion of each 12-month sampling period. This Sampling Event Factual Report has been prepared to report the results of the biannual sampling event completed in November and December 2021, specifically highlighting first time detections and/or first-time exceedances of human health and/or ecological screening criteria for Perfluorooctanesulfonic acid (PFOS) + Perfluorohexanesulfonic acid (PFHxS) and/or Perfluorooctanoic acid (PFOA).

This reported has been prepared in accordance with the Defence *PFAS OMP Factual Report Guidance,* Version 0.2 dated May 2021 (Defence, 2021).

1.2 Objectives

The objectives of the OMP program are to:

- implement the OMP (Defence, 2019a) prepared as part of the Detailed Environmental Investigations; and
- collect data that will enable Defence to maintain an up to date understanding of the distribution, concentration, transport and transformation of PFAS within the Management Areas.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PFAS Management Area Plan (PMAP) (Defence, 2019b).

The objective of this phase of the project is to implement the scope of works for the November 2021 sampling event in accordance with the Sampling and Analysis Quality Plan (SAQP) (AECOM, 2021).

2.0 Scope of Work

2.1 Summary of Scope

The biannual sampling event was completed in general accordance with the SAQP (AECOM, 2021). In summary, the scope of works completed included:

- obtaining permission (where required) to conduct works at the Site, off-site publicly accessible areas and privately owned properties
- gauging of groundwater levels in monitoring wells prior to collection of samples (refer to **Table 1** below, and **Figure 2** in **Appendix A** for specific locations)
- collection of groundwater samples from 88 existing monitoring wells using either HydraSleeves™ or dedicated, disposable bailers (refer to **Table 1** below, and **Figure 2** in **Appendix A** for specific locations). It is noted that samples from four monitoring locations could not be collected during this sampling event (refer to **Table 8** for more details)
- collection of 22 surface water samples (refer to **Table 2** below, and **Figure 3** in **Appendix A** for specific locations). It is noted that surface water samples from one location could not be collected during this sampling event (refer to **Table 10** for further details)
- collection of 21 sediment samples (refer to **Table 3** below, and **Figure 4** in **Appendix A** for specific locations). It is noted that a sediment sample from one location could not be collected during this sampling event (refer to **Table 11** for further details)
- collection of field duplicate samples at a rate of 1 in 10 primary samples and collecting one rinsate sample per fieldwork day
- analysis of samples for the following:
  - all samples for the PFAS suite at the standard limit of reporting (LOR).
  - 20% of groundwater and surface water samples for nutrients (ammonia, nitrate, nitrite, phosphorous) and selected metals (aluminium, bromide, iron and manganese)
- data management of the OMP field and laboratory data in Defence ESdat database
- preparation of this Sampling Event Factual Report.

2.2 Planned Monitoring Locations

The monitoring locations outlined within the SAQP (AECOM, 2021) for the planned biannual groundwater, surface water and sediment sampling events are outlined in **Table 1**, **Table 2** and **Table 3** below.

Table 1 Groundwater Sampling Locations

Area	Description	Sampling Locations	Number of wells/ bores	Total
On-Site	West of Site (including Airfield Former Fire Ground/Training Ground)	MW008, MW009, MW010, MW040, MW041, MW117, MW118, MW119	8	75 Locations
	Airfield Foam Cannon Testing Area and Surrounds	MW030, MW053, MW054, MW056, MW057, MW058, MW059, MW107D, MW107I, MW108	10	
	Airfield Flight Line (including Fire Station, Building 291)	MW007, MW024, MW025, MW026, MW027, MW028, MW042, MW043	8	

Area	Description	Sampling Locations	Number of wells/ bores	Total
	Site Infrastructure (including Hangar 54)	MW044*, MW045*, MW046, MW060, MW061, MW062, MW063, MW064, MW065, MW066, MW067, MW068, MW069, MW070, MW071	15	
	East of Site (including Tanker Parking Area and Former Fuel Farm 1)	MW047, MW048, MW050, MW051, MW052, MW072, MW073, MW074	8	
	Sewage Treatment Plant and Surrounds	MW020, MW021, MW022, MW023, MW036, MW109, MW110	7	
	Fuel Farm 2	MW032, MW033, MW034	3	
	Rickabys Drop Zone	MW001, MW002, MW004, MW005, MW006*, MW012, MW013, MW014, MW015, MW016, MW017, MW095, MW111, MW112, MW113, MW114	16	
Off-Site	West of Site	MW075, MW076, MW077, MW078, MW081	5	17 Locations
	North west of Site	MW079, MW080, MW082, MW106, MW120, MW121	6	
	North East of Site	MW097, MW098, MW099*	3	
	East of Site	MW086, MW091, MW092	3	

Note: *Location not sampled. Refer to **Table 4** for further details

Table 2 Surface Water Sampling Locations

Area	Description	Sampling Locations	Number of Locations	Total
On-Site	North west of Site (including STP discharge point)	SW001, SW002, SW003, SW037	4	11 Locations
	North east of Site (including tributary of Rickabys Creek)	SW005, SW007, SW014	3	
	East of Site (including Rickabys Creek)	SW008, SW009, SW011, SW013	4	
Off-Site	West of Site	SW022, SW024, SW035	3	12 Locations
	North of Site	SW015, SW016, SW032, SW081*	4	
	East of Site	SW018, SW019, SW023, SW030	4	
	South of Site	SW020	1	

Note: *Location not sampled. Refer to **Table 4** for further details

Table 3 Sediment Sampling Locations

Area	Description	Sampling Locations	Number of Locations	Total
On-Site	North west of Site (including STP discharge point)	SD001, SD002, SD003	3	10 Locations
	North east of Site (including tributary of Rickabys Creek)	SD005, SD007, SD014	3	
	East of Site (including Rickabys Creek)	SD008, SD009, SD011, SD013	4	
Off-Site	West of Site	SD022, SD024, SD035	3	12 Locations
	North of Site	SD015, SD016, SD032**,** SD081*	4	
	East of Site	SD018, SD019, SD023, SD030	4	
	South of Site	SD020	1	

Note: *Location not sampled. Refer to **Table 4** for further details

3.0 Deviations from the SAQP

The November 2021 sampling event was completed in general accordance with the SAQP (AECOM, 2021) with the exception of the deviations outlined in **Table 4** below.

Table 4 Deviations from SAQP (AECOM, 2021)

SAQP	November 2021 Sampling Event
92 groundwater locations are identified to be sampled as part of the biannual sampling event	Monitoring wells MW006 (located in Rickabys Drop Zone) and MW099 (located off-site along Cupitts Lane) were observed to have been destroyed. No samples were able to be collected. Monitoring wells MW044 and MW045 (located on base) were located underneath stockpiles of construction material and therefore were not able to be accessed for sampling. AECOM does not consider the lack of sampling from these locations to constitute a significant data gap as the existing monitoring well network provides sufficient coverage of these locations. AECOM will attempt to resample MW044 and MW045 during the next scheduled sampling event in May 2022.
Groundwater samples are to be collected using HydraSleeves™ deployed prior to the sampling event	Groundwater samples MW007, MW009, MW072, MW074, MW120 and MW121 were collected using dedicated disposable bailers as HydraSleeves™ were either not present, did not deploy appropriately or insufficient water was available. AECOM will attempt to resample the wells using HydraSleeves™ during the next scheduled sampling event in May 2022. As the concentrations of PFAS reported in these samples were either within the historical range for each location, or within the same order of magnitude of historical results, the change in sampling methodology is not considered to impact upon the reliability of the data for the purposes of the OMP.
20% of groundwater and surface water samples for nutrients (ammonia, nitrate, nitrite, phosphorous) and selected metals (aluminium, bromide, iron and manganese)	Due to a low volume of groundwater being present in location MW009, it was only analysed for PFAS, rather than the proposed broader suite. As a result, only 17.2% of samples were analysed for the expanded suite, rather than the target 20%. Given that the actual rate was only marginally lower than the target rate of 20%, AECOM considers that the data collected are sufficiently representative for the purposes of the OMP.
23 surface water locations are identified to be sampled as part of the biannual sampling event	AECOM was unable collect a sample from proposed surface water location SW081 as the road was closed due to council road rectification works following the damage sustained during significant flood event in March 2021. Concentrations of PFAS in surface water at this location remain a data gap as this location has not been sampled previously. AECOM will attempt to collect a sample from the location again during the next scheduled OMP sampling event in May 2022.

SAQP	November 2021 Sampling Event
22 sediment locations are identified to be sampled as part of the biannual sampling event	AECOM was unable collect a sample from proposed sediment location SD081 as the road was closed due to council road rectification works following the damage sustained during a significant flood event in March 2021. Concentrations of PFAS in sediment at this location remain a data gap as this location has not been sampled previously. AECOM will attempt to collect a sample from the location again during the next scheduled OMP sampling event in May 2022.
Surface water samples are to be collected by lowering a laboratory supplied container into the water with the cap immediately applied once the container is full.	Due to access considerations, the surface water sample from SW037 was collected using a dedicated disposable bailer. As the concentrations of PFAS reported in this sample were within the historical range for this location, the change in sampling methodology is not considered to impact upon the reliability of the data for the purposes of the OMP.

4.0 Methodology

4.1 Sampling Methodology

The methodology adopted for the November 2021 biannual sampling event was in general accordance with the SAQP (AECOM, 2021) and summarised in **Table 5** below:

Table 5 Sampling Methodology

Item	Details
Groundwater gauging	The depth to groundwater (in metres below top of casing [mbtoc]) was measured in each monitoring well immediately prior to collection of groundwater samples using an interface probe, with the exception of MW006, MW044, MW045 and MW099. MW006 and MW099 were observed to have been destroyed, while MW044 and MW045 had been covered by stockpiles of construction materials.
Field parameters	Temperature, electrical conductivity (EC), dissolved oxygen (DO), oxidation-reduction potential (ORP), pH and observations of water quality were recorded for all groundwater and surface water samples with the exception of locations where wells were destroyed or unable to be accessed (MW006, MW044, MW045, MW099 and SW081). Field parameters were collected using a calibrated water quality meter (WQM), with equipment supplier and field calibration records provided in **Appendix C**.
Sampling methodology	Groundwater samples were collected from the majority of monitoring wells using no-purge methodology (i.e., HydraSleeves™), which were installed within the screened interval of the wells greater than 24hrs prior to the sampling round. Installation depths were based on a review of the well construction logs. Once sampling was completed, new HydraSleeves™ were deployed in the majority of monitoring wells at the screened interval depth in preparation for the next sampling round. Groundwater samples at MW007, MW009, MW072, MW074, MW120 and MW121 were collected using dedicated disposable bailers as HydraSleeves™ were either not present or did not deploy appropriately. The majority of surface water samples were collected by lowering a laboratory supplied container below the water surface to minimise collection of sediment or floating materials in the samples. At each location, a new, laboratory supplied container was lowered into the water with the cap immediately applied once the container was full. At SW037, the sample was collected using a dedicated disposable bailer, before being decanted into laboratory supplied bottles. SW081 was unable to be accessed during the monitoring event and therefore no sample could be collected. Sediment samples were collected using a trowel from the base of the drain. At each location, a new laboratory supplied container was used to collect the sample. The trowel was decontaminated between sampling locations using a PFAS-free detergent (Liquinox®) followed by a double rinse with laboratory supplied de-ionised, PFAS free water. SD081 was unable to be accessed during the monitoring event and therefore no sample could be collected.
QA/QC Samples	Field QA/QC samples collected included intra-laboratory duplicate and inter-laboratory duplicate samples (i.e., splits) and rinsate samples. Refer to **Appendix D** for assessment of QA/QC sample data.

Item	Details
Sample analysis	Samples were submitted to the primary and secondary laboratories for analysis detailed in **Section 2.0**. ALS Environmental (ALS) Sydney, NSW was used as the primary laboratory. The Envirolab of Sydney, NSW was used as the secondary laboratory. ALS and Envirolab methods for analyses were certified by the National Association of Testing Authorities (NATA). Laboratory certificates are presented in **Appendix E**.

4.2 Adopted Screening Criteria

Adopted screening criteria reference national guidance in the form of the PFAS National Environmental Management Plan, Defence estate and environmental strategies, and Defence PFAS-specific strategies and guidance. Guidance documents used to assess the dataset includes the following:

- PFAS National Environmental Management Plan 2.0 (NEMP), (HEPA 2020) (https://www.environment.gov.au/protection/publications/pfas-nemp-2)
- Department of Health (DoH), 2017. Health Based Guidance Values for PFAS for use in site investigations in Australia. April 2017 (FSANZ 2017).
- National Health and Medical Research Council (NHMRC), 2019. Guidance on PFAS in Recreational Water. August 2019 (NHMRC 2019).
- National Environment Protection (Assessment of Site Contamination) Measure 1999, Schedule B1, as amended in 2013 (ASC NEPM).

The adopted screening criteria are presented in **Table 6** below.

Table 6 Summary of Adopted Screening Criteria

Pathway	Compound	Criteria	Comment/Reference
Human Health Receptors			
Drinking water - groundwater	PFOS + PFHxS	0.07 µg/L	The values presented in the PFAS NEMP, 2020 are from DoH 2017, which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH utilised the TDI for PFOS and PFOA from FSANZ, 2017 and the methodology described in Chapter 6.3.3 of the National Health and Medical Research Council's (NHMRC) Australian Drinking Water Guidelines (ADWG), 2016 to determine drinking water values. For PFHxS, DoH 2017 noted that '*FSANZ concluded that there was not enough toxicological and epidemiological information to justify establishing a tolerable daily intake. However, as a precaution, and for the purposes of site investigations, the PFOS tolerable daily intake should apply to PFHxS. In practice, this means that the level of PFHxS exposure should be added to the level of PFOS exposure; and this combined level be compared to the tolerable daily intake for PFOS*'.
	PFOA	0.56 µg/L	
Recreational use – surface water	PFOS + PFHxS	2 µg/L	In August 2019, NHMRC released guidance on the assessment of PFAS in surface water. Rather than adopting an ingestion rate of 0.2 L of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year.
	PFOA	10 µg/L	
Ecological Receptors			
Freshwater (99% species protection values)	PFOS	0.00023 µg/L	The values are from the PFAS NEMP, 2020 which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality – draft default guideline values. AECOM understands that these guidelines are currently being reviewed and will consider the appropriateness of considering any future revision. The 99% level of protection has been applied for slightly to moderately disturbed ecosystems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. For the purposes of preliminary screening of analytical water results, the laboratory LOR will be adopted rather than sole use of the criteria value.
	PFOA	19 µg/L	

4.3 Data Quality Objectives and Data Validation

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2021).

The data validation assessment is provided in **Appendix D**.

Data validation employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

All data collected during this event have been reviewed and uploaded to the Defence ESdat database in accordance with Defence Contamination Management Manual (DCMM) requirements.

5.0 Field Observations and Results

5.1 General Field Observations

The field observations noted during the sampling event are summarised in **Table 7** below.

Table 7 General Field Observations

Items	Observations
Weather Conditions	During the November 2021 sampling event, the weather in general was observed to be overcast with light to heavy precipitation and cool to moderate temperature with a maximum daily temperature of 28.1°C recorded on Wednesday 24 November 2021. 82.4 mm of rainfall was recorded between 22 and 26 November 2021 at RAAF Base Richmond (Richmond RAAF NSW, 067105) (Bureau of Meteorology, 2021).
Estate Management Works or Training Activities	During the sampling event, the following notable estate works were observed in the vicinity of the sampling locations: • tank refurbishments being completed at the Sewage Treatment Plant. The works were being undertaken by Baseline Projects. No training activities were observed in the vicinity of the sampling locations during the event.

5.2 Groundwater Observations and Results

5.2.1 Groundwater Observations and Field Measurements

Groundwater observations and field measurements recorded during the sampling event are presented in **Table 8** below.

Table 8 Groundwater Observations and Field Measurements

Compound	Criteria
Fieldwork Dates	The groundwater sampling was completed between 22 and 29 November and 14 December 2021.
Access and Sample Collection	All monitoring wells and bores were accessible and able to be sampled with the exception of the following: • monitoring wells MW006 and MW099 were observed to be destroyed and could not be sampled. • monitoring wells MW044 and MW045 were observed to be covered by soil stockpiles and could not sampled.
Monitoring Well Network Condition	Monitoring wells MW006 and MW099 were observed to have been destroyed. Monitoring wells MW117, MW118 and MW119 were observed to be missing well caps, with surface water infiltration observed. Based on these observations, and that concentrations of PFAS reported in these locations were up to eight times higher than historical results, AECOM considers that the integrity of these wells has likely been compromised. New well caps were installed following the November 2021 sampling event. The stabilised water level within MW098 was observed to be at the ground surface and the gatic was noted to be damaged. These observations suggest that the integrity of the monitoring well may be compromised, however the concentrations of PFAS reported were consistent with historical results (below the laboratory LOR).
Contamination Observations	No visible indications of contamination were observed during the sampling.
Depth to Groundwater and flow direction	Excluding monitoring wells MW098, MW117, MW118 and MW119 (which are likely to have been subject to surface water ingress) the depth to groundwater ranged from 0.123 (MW013) and 17.676 (MW054) m btoc. Groundwater elevations in the aquifer were between 3.08 (MW092) and 15.477 (MW071) metres Australian Height Datum (m AHD). Groundwater gauging data is presented in **Table T1** in **Appendix B**. Inferred groundwater contours and groundwater flow directions at the site in November 2021 are shown on **Figure 5** in **Appendix A**. The inferred local groundwater flow direction for the regional shallow (unconfined) aquifer is towards the north and northeast towards the Hawkesbury River with mounding observed in the eastern corner of the Site in the vicinity of the fuel farm, which was generally consistent with the DSI (AECOM, 2018) and flow directions observed during previous PFAS OMP monitoring events. Gauging data from MW098, MW117, MW118 and MW119 were excluded from the groundwater elevation plan given that they were likely subject to surface water ingress. Furthermore, thirteen additional locations (MW070 to MW072 and MW106 to MW116) were excluded from the contour plan due to the wells either being screened in perched water, or screened in deep groundwater within the underlying bedrock. Additionally, it is noted that the groundwater elevation plan has been prepared based on gauging data collected between 22 and 29 November 2021 during which 82.4 mm of rainfall was recorded. Therefore, while the elevation plan is generally consistent with previous groundwater elevation plans, there is the potential that the rainfall event may have influenced the elevations in the plan, particularly in the low-lying areas (i.e Rickabys Drop Zone and surrounds).

Compound	Criteria
Geochemical Parameters	Groundwater geochemical parameters were measured prior to collecting groundwater samples. The stabilised readings are presented in **Table T1** in **Appendix B**, and are summarised below: • dissolved oxygen ranged from 0.12 mg/L (MW015) to 5.30 mg/L (MW023) indicating poorly to moderately well oxygenated conditions • electrical conductivity ranged from 145.8 µS/cm (MW050) to 20,200 µS/cm (MW005) indicating fresh to saline conditions • pH ranged from 5.60 (MW060) to 7.90 (MW028) indicating slightly acidic to slightly alkaline conditions • corrected Redox ranged from 58.0 mV (MW121) to 402.9 mV (MW070) indicating reducing conditions.

5.2.2 PFAS Groundwater Analytical Results

The PFAS groundwater analytical results from this sampling event are presented in **Table T2** in **Appendix B**.

In summary, PFAS compounds were reported at concentrations above the laboratory LOR in 75 of the 88 primary groundwater samples analysed. Concentrations of PFOS+PFHxS and/or PFOA exceeded the adopted human health criteria in 65 of the primary groundwater samples analysed. Concentrations of PFOS and/or PFOA exceeded the adopted ecological screening criteria in 69 of the primary groundwater samples analysed.

Deviations from the historical dataset are provided in **Table 9** below and graphically on **Figure 6** in **Appendix A**.

Table 9 Deviations from Historical Groundwater Dataset

Deviation Type	Location ID	PFOS+PFHxS concentration (µg/L)		PFOS concentration (µg/L)		PFOA concentration (µg/L)	
		Nov 2021	Historical maximum	Nov 2021	Historical maximum	Nov 2021	Historical maximum
First time detections of PFOS+PFHxS and/or PFOA in groundwater	No first time detections of PFOS+PFHxS and/or PFOA were reported during the current sampling event.						
First time exceedance of the NEMP (HEPA, 2020) drinking water guidelines	MW078	**0.19**	0.02	0.01	<0.01	<0.01	<0.01
First time exceedance of the NEMP (HEPA, 2020) Freshwater 99% guidelines in surface water	MW078	**0.19**	0.02	0.01	<0.01	<0.01	<0.01

Legend	
Bold	Bold text indicates existing detection or exceedance of NEMP Human Health Screening Criteria
Blue Shading	Blue shading indicates sampling location with first time detection of PFOS+PFHxS and/or PFOA
Yellow Shading	Yellow shading indicates sampling location with first time exceedance of NEMP Human Health Screening criteria
Purple Shading	Purple shading indicates sampling location with first time exceedance of NEMP Ecological Screening criteria

5.2.3 Non-PFAS Groundwater Analytical Results

The non-PFAS groundwater analytical results from this sampling event are presented in **Table T2** in **Appendix B**.

5.3 Surface Water Observations and Results

5.3.1 Surface Water Observations and Field Measurements

Surface water observations and field measurements recorded during the sampling event are presented in **Table 10** below.

Table 10 Surface Water Observations and Field Measurements

Compound	Criteria
Fieldwork Dates	The surface water sampling was completed on 25, 26 and 29 November, and 14 December 2021.
Access and Sample Collection	All surface water sampling locations were accessible and able to be sampled with the exception of SW081.
Contamination Observations	No obvious visible signs of contamination were observed, with the exception of minor foam of unknown origin at SW001.

Compound	Criteria
Geochemical Parameters	Surface water geochemical parameters were measured prior to collecting surface water samples. The stabilised readings are presented in **Table T1** in **Appendix B**, and are summarised below: • dissolved oxygen ranged from 0.0 mg/L (SW037) to 9.46 mg/L (SW030) indicating relatively poorly oxygenated to well oxygenated conditions • electrical conductivity ranged from 6.64 µS/cm (SW020) to 1642 µS/cm (SW005) indicating fresh to slightly brackish conditions • pH ranged from 5.7 (SW014) to 7.68 (SW035) indicating slightly acidic to slightly alkaline conditions • corrected redox ranged from 33.4 mV (SW037) to 373.1 mV (SW001) indicating reducing conditions.

5.3.2 PFAS Surface Water Analytical Results

The PFAS surface water analytical results from this sampling event are presented in **Table T3** in **Appendix B**.

In summary, PFAS compounds were reported at concentrations above the laboratory LOR in 21 of the 22 surface water samples analysed. Concentrations of PFOS+PFHxS and/or PFOA exceeded the adopted human health screening criteria in 6 of the 22 primary surface water samples analysed. Concentrations of PFOS and/or PFOA exceeded the adopted ecological screening criteria in 21 of the 22 primary surface water samples analysed.

No first time detects, or first time exceedances of the adopted human health or ecological screening criteria were noted in the dataset.

5.3.3 Non-PFAS Surface Water Analytical Results

The non-PFAS surface water analytical results from this sampling event are presented in **Table T3** in **Appendix B**.

5.4 Sediment Observations and Results

5.4.1 Sediment Observations

Sediment observations recorded during the sampling event are presented in **Table 11** below.

Table 11 Sediment Observations

Compound	Criteria
Fieldwork Dates	The sediment sampling was completed 25, 26 and 29 November and 14 December 2021.
Access and Sample Collection	All sediment sample locations were accessible and able to be sampled with the exception of SD081.
Sediment observations	Sediments sampled during this monitoring event were variable comprising sand, silt, gravel and clay materials with minor inclusions of organic material (roots, grass, wood, moss and leaves) noted. No anthropogenic inclusions were noted. No staining was observed. Minor organic odour was noted at a small number of locations. Refer to **Table T4** in **Appendix B** for a summary of sediment classifications and observations.

5.4.2 PFAS Sediment Analytical Results

The PFAS sediment analytical results from this sampling event are presented in **Table T5** in **Appendix B**. In summary, PFAS compounds were detected at concentrations above the laboratory LORs in 19 of the 21 primary sediment samples analysed.

No first time detects of PFAS were noted in the dataset.

5.5 Historical Sampling Data

Historical groundwater, surface water and sediment sampling data are presented in **Tables T6, T7** and **T8** (respectively) in **Appendix B**.

6.0 Summary and Next Sampling Events

6.1 Summary of Monitoring Event

The biannual monitoring event was completed at the Site, publicly accessible land and private property within the Management Areas between 22 and 29 November and 14 December 2021. The program included:

- groundwater gauging at 88 of 92 monitoring wells and bores. It is noted that four planned sampling locations could not be gauged
- groundwater sampling at 88 of 92 monitoring wells and bores. It is noted that four planned sampling locations could not be sampled
- surface water sampling at all 22 of 23 planned locations. It is noted that one planned sampling location could not be sampled
- sediment sampling at 21 of 22 planned locations. It is noted that one planned sediment sampling locations could not be sampled

Table 12 below summarises the findings of the November 2021 sampling event and the recommended actions.

Table 12 Summary of Sampling Event

Item	Comment	Recommended Actions
Access to sampling locations	The following were accessed and able to be sampled: • 88 out of 92 monitoring wells and bores • 22 out of 23 surface water locations • 21 out of 22 sediment locations	AECOM will attempt to access locations MW044, MW045, SW081 and SD081 during the next scheduled sampling event in May 2022.
Monitoring well network condition	Monitoring wells MW006 and MW099 were noted to have been destroyed. Monitoring wells MW117, MW118 and MW119 were observed to be missing well caps and surface water infiltration was observed. Given the (up to) five times increase in PFAS concentrations observed in these wells, it is considered likely that the integrity of these wells has been compromised. AECOM installed new monitoring well caps on each of these wells following the November 2021 monitoring event to prevent further surface water ingress. In MW098, the SWL was noted to be at the ground surface. Given that the SWL within this well has been historically gauged to be between 1.072 and 2.144 m btoc, it is possible that the integrity of this well has been compromised.	AECOM recommends that monitoring wells MW006 and MW099 be removed from the OMP and decommissioned, given that the existing monitoring well network provides sufficient coverage in these areas. AECOM recommends redeveloping monitoring wells MW098, MW117, MW118 and MW119 prior to the next scheduled OMP sampling event in May 2022.
Analytical Results	PFAS were detected at concentrations above the laboratory LOR in 75 of the 88 groundwater samples, 21 of 22 surface water samples and 19 of 21 sediment samples analysed.	No actions recommended.

Item	Comment	Recommended Actions
First time exceedance of NEMP drinking water guideline values in groundwater	Concentrations of PFOS+PFHxS exceeded the NEMP drinking water criteria for the first time in monitoring well MW078.	Monitoring well will be sampled again during the May 2022 sampling event.
First time exceedance of NEMP ecological screening criteria in groundwater	Concentrations of PFOS exceeded the NEMP ecological screening criteria for the first time in monitoring well MW078.	Monitoring well will be sampled again during the May 2022 sampling event.
First time detection of PFOS+PFHxS and/or PFOA in groundwater	PFOS was detected for the first time in groundwater at monitoring wells MW078.	Monitoring well will be sampled again during the May 2022 sampling event.

6.2 Upcoming Sampling Events

The next biannual sampling event is scheduled for May 2022.

6.3 Upcoming Annual Interpretive Report

The next annual interpretive report is scheduled to be delivered in Q2 2022.

7.0 References

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Department of Defence, 2021. *PFAS OMP Factual Report Guidance,* Version 0.2 dated May 2021.

Heads of EPAs Australia and New Zealand (HEPA) 2020. *PFAS National Environmental Management Plan*. Version 2.0, January 2020.

Standards Australia (AS 4482.2-1999) *Guide to the sampling and investigation of potentially contaminated soil, Part 2: Volatile Substances.*

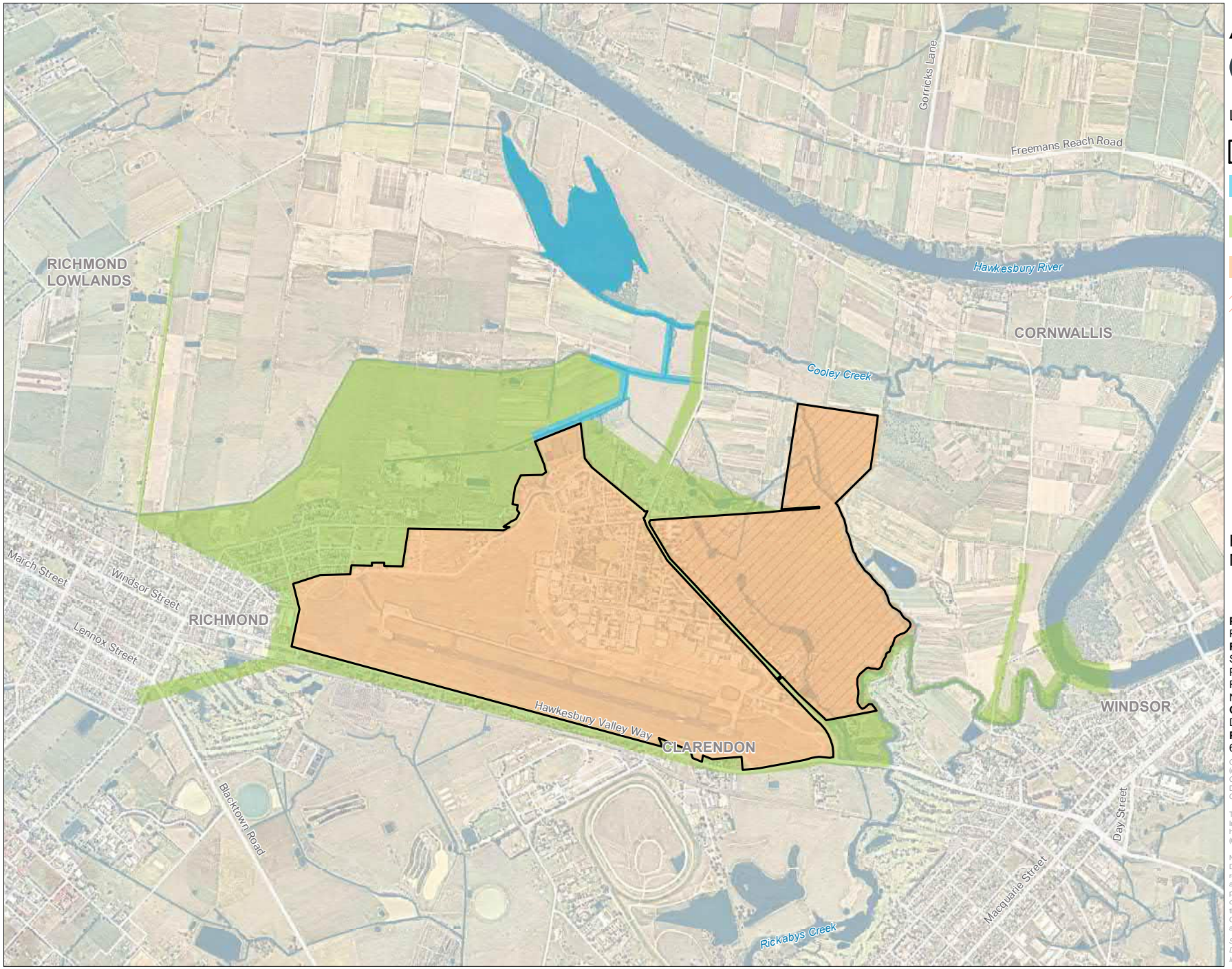
Standards Australia (AS 4482.1-2005) *Guide to the sampling and investigation of potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds.*

Standards Australia 1998. AS/NZ 5667:1998 *Water quality – sampling.*

Appendix A

Figures

Appendix A Figures



AECOM

N

0 300 600 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Off-site Management Area
- On-site Management Area
- Rickabys Drop Zone

FIGURE 1:
MANAGEMENT AREAS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
PFAS OMP
RAAF Base Richmond (0902)
November 2021
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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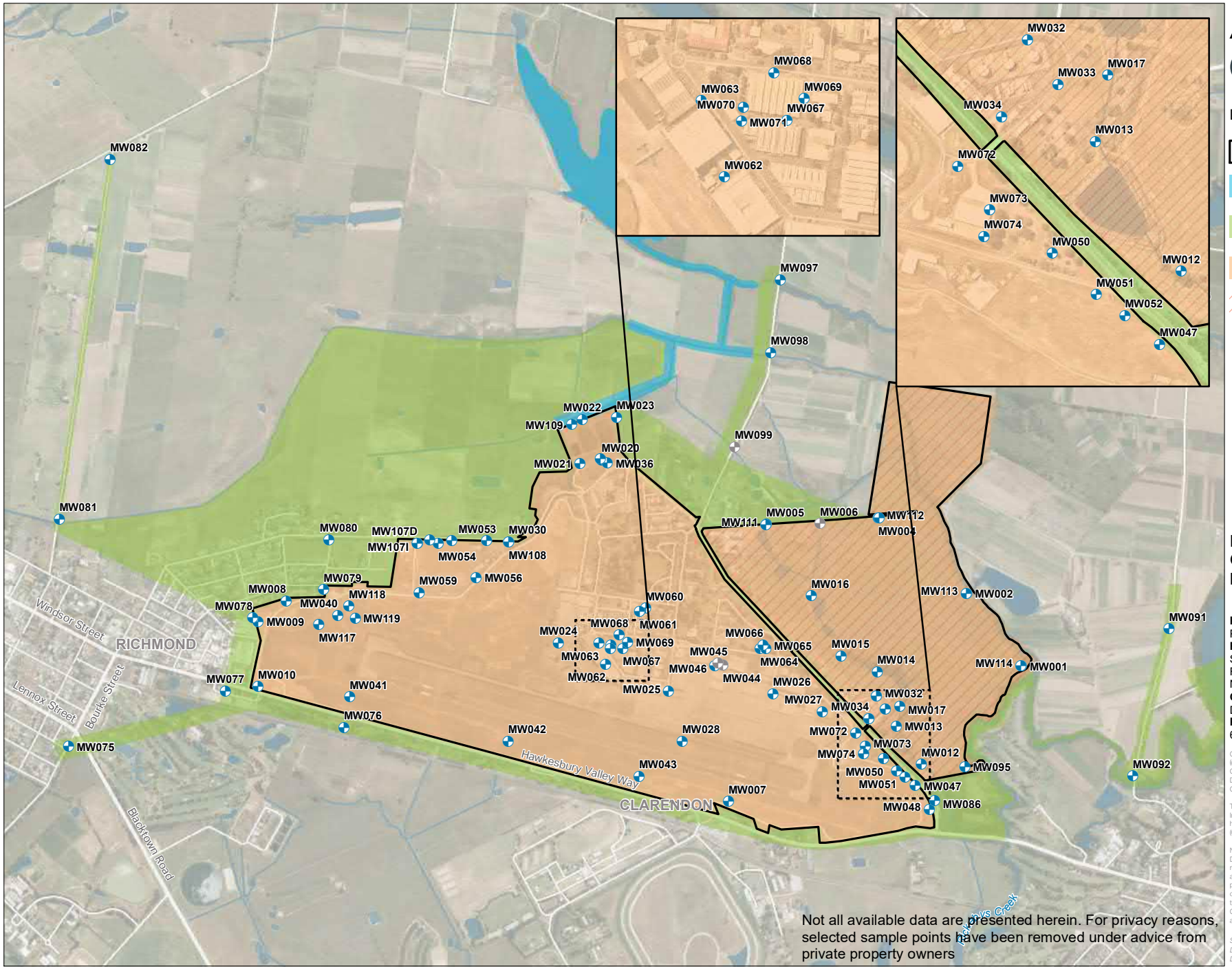

AECOM

N

0 200 400 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Off-site Management Area
- On-site Management Area
- Rickabys Drop Zone
- Groundwater Sample Location
- Location not sampled

Not all available data are presented herein. For privacy reasons, selected sample points have been removed under advice from private property owners

FIGURE 2:
GROUNDWATER SAMPLE LOCATIONS

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RAAF Base Richmond (0902)
November 2021
CLIENT NAME:
Department of Defence
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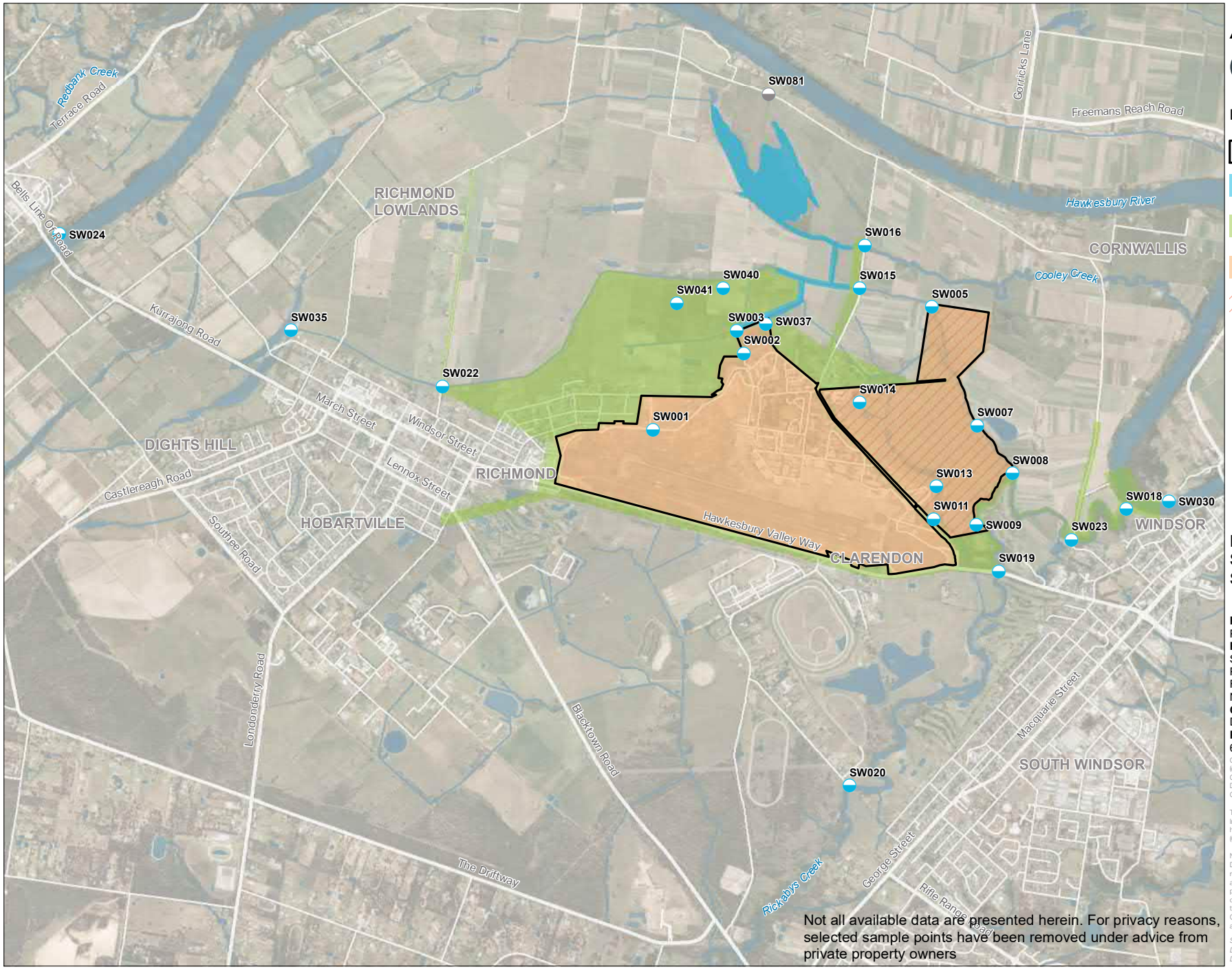

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FIGURE 3: SURFACE WATER SAMPLE LOCATIONS

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PFAS OMP
REPORT NAME:
Sampling and Analysis Quality Plan
PFAS OMP
RAAF Base Richmond (0902)
November 2021
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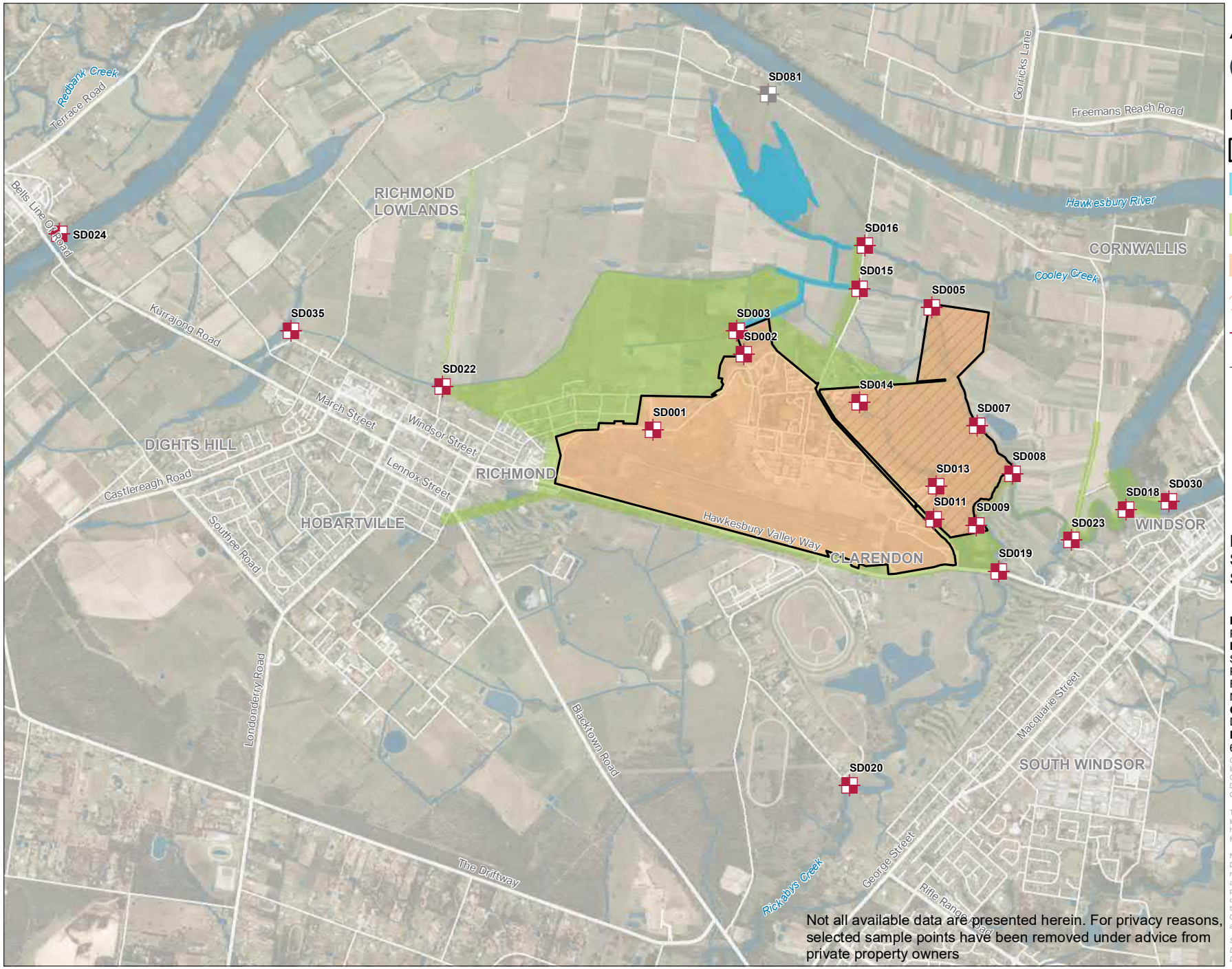

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AECOM

N

0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Off-site Management Area
- On-site Management Area
- Rickabys Drop Zone
- Sediment Sample Location
- Location not sampled

FIGURE 4: SEDIMENT SAMPLE LOCATIONS

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PFAS OMP
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PFAS OMP
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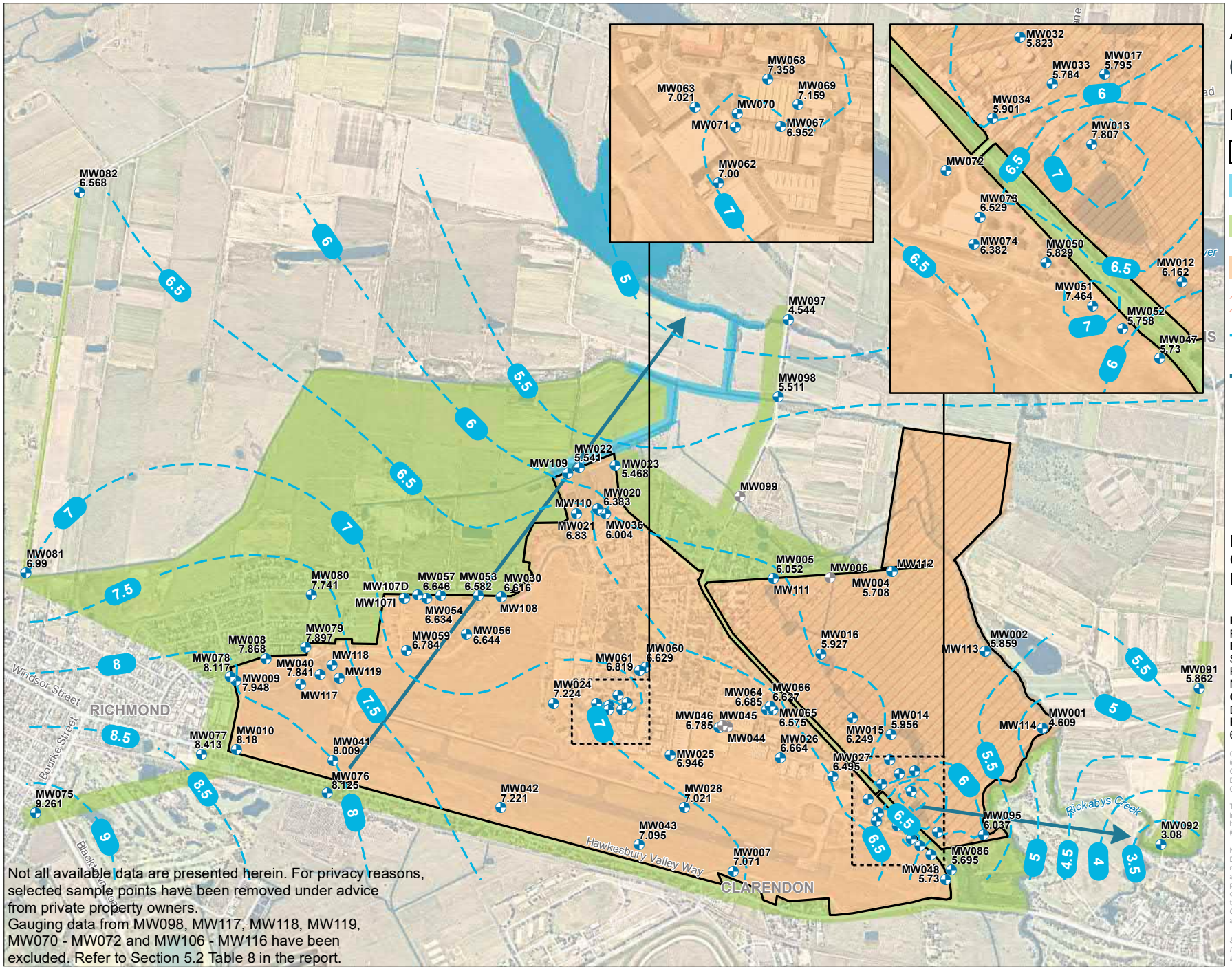

Not all available data are presented herein. For privacy reasons, selected sample points have been removed under advice from private property owners.
Gauging data from MW098, MW117, MW118, MW119, MW070 - MW072 and MW106 - MW116 have been excluded. Refer to Section 5.2 Table 8 in the report.

AECOM

N

0 250 500 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Off-site Management Area
- On-site Management Area
- Rickabys Drop Zone
- Groundwater Contours (mAHD)
- Inferred Groundwater Flow Direction
- Groundwater Sample Location (mAHD)
- Location not gauged

FIGURE 5: GROUNDWATER ELEVATION PLAN

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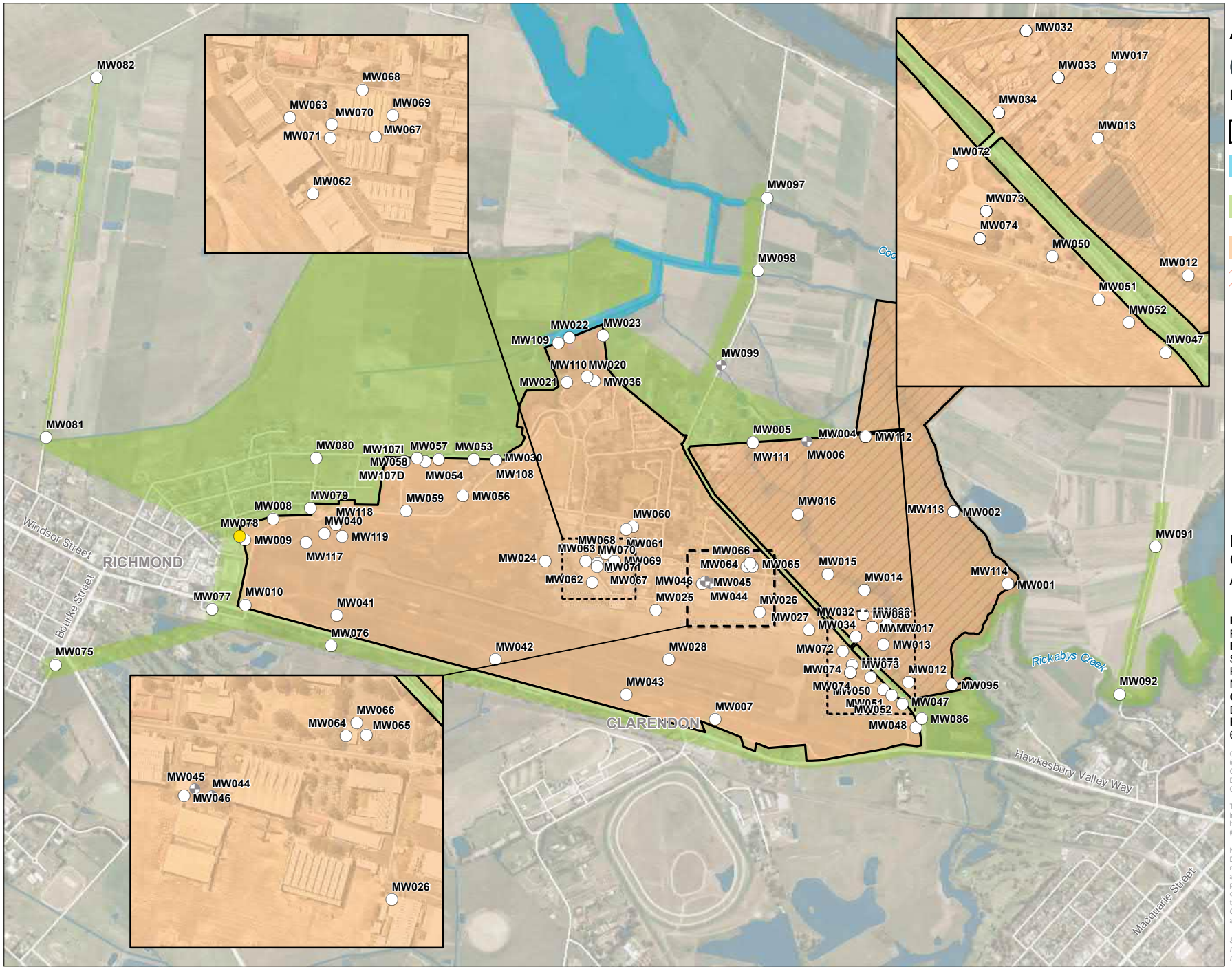

FIGURE 6: GROUNDWATER ANALYTICAL RESULTS

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Appendix B

Tables

Appendix B Tables

Table T1 - Gauging and Geochemical Parameters

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													Field Measurements					
													Redox Er	Redox Eh (Corrected)	Dissolved Oxygen	Temperature	Electric Conductivity	pH
													mV	mV	mg/L	oC	µS/cm	pH_Units
Location	Historical Name	Easting	Northing	Sample Date	Top of Casing (mAHD)	Water Depth (mbTOC)	Water level (mAHD)	Depth of Well (mbTOC)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	Location Type	Observations						
MW001	MW01	296233.04	6279804.88	29/11/2021	10.1	5.491	4.609	9.41	5.5	8.5	MW	Light Brown, Medium turbidity, No sheen	27	232.8	2.45	20	1172	6.55
MW002	MW02	295984.34	6280136.03	29/11/2021	9.89	4.031	5.859	9.82	5.9	8.9	MW	Light Grey, Low turbidity, No odour, No sheen	-29.1	176.7	1.29	18.8	3158	6.76
MW004	MW04	295579.62	6280480.79	25/11/2021	7.18	1.472	5.708	12.93	-	-	MW	Light Brown, Low turbidity, No odour, No sheen	24.9	230.7	0.51	19.5	3050	6.65
MW005	MW05	295067.61	6280452.91	25/11/2021	9.13	3.078	6.052	9.92	-	-	MW	Light Brown, Clear turbidity, No odour, No sheen	104.4	310.2	0.69	20.5	20,200	6.35
MW006	MW06	295313.31	6280456.31	-	6.78	-	-	-	-	-	MW	Unable to access, assumed destroyed	-	-	-	-	-	-
MW007	MW07	294894	6279186.7	23/11/2021	16.03	8.959	7.071	11.71	8.8	11.8	MW	Light Brown, Low turbidity, No odour, No sheen	70.3	276.1	3.33	21.3	5098	7.25
MW008	MW08	292873	6280103.9	23/11/2021	20.93	13.062	7.868	16.15	12	15	MW	Dark Red, Medium turbidity, No odour, No sheen	73.2	279	2.29	20.7	2868	6.36
MW009	MW09	292744.26	6280009.08	23/11/2021	20.44	12.492	7.948	13.14	-	-	MW	Light Brown, Medium turbidity, No odour, No sheen	79.3	285.1	1.71	21	3967	6.33
MW010	MW10	292745.2	6279711.7	23/11/2021	21.06	12.88	8.18	21.8	17.9	20.9	MW	Light Brown, Turbid, No odour, No sheen	-14	191.8	`	22.7	1185	6.61
MW012	MW12	295777.41	6279355.85	29/11/2021	6.64	0.478	6.162	5.2	1	4	MW	Light Brown, Medium turbidity, No odour, No sheen	33.2	239	4.28	18.7	1847	6.76
MW013	MW13	295662.37	6279530.47	29/11/2021	7.93	0.123	7.807	6.05	4	7	MW	Orange / Brown, Medium turbidity, No odour, No sheen	8	213.8	1.29	17.7	1028	6.2
MW014	MW14	295575.28	6279777.44	29/11/2021	6.24	0.284	5.956	9.44	5.3	8.3	MW	Light Brown, Low turbidity, No odour, No sheen	-1.2	204.6	2.81	19.5	826	6.95
MW015	MW15	295409.76	6279849.44	29/11/2021	7.02	0.771	6.249	9.06	5.5	8.5	MW	Light Brown, Low turbidity, No odour, No sheen	-73.5	132.3	0.12	18.8	422.9	6.75
MW016	MW16	295272.46	6280125.9	29/11/2021	7.39	1.463	5.927	5.98	2	5	MW	Light Brown, Low turbidity, No odour, No sheen	-81.2	124.6	0.92	19.1	1921	7.47
MW017	MW17	295678.47	6279619.81	29/11/2021	6.51	0.715	5.795	4.82	-	-	MW	Light Brown, Low turbidity, No odour, No sheen	-39	166.8	0.92	17.1	3337	6.79
MW020	MW20	294314	6280748	24/11/2021	8.945	2.562	6.383	6.53	-	-	MW	Clear, Low turbidity, No odour, No sheen	184.2	390	1.3	23.8	441.8	5.73
MW021	MW21	294215.84	6280730.08	24/11/2021	7.88	1.05	6.83	3.51	-	-	MW	Light Grey, Low turbidity, Weal organic odour, No sheen, gatic damaged	90.9	296.7	1.94	22.2	678	6.69
MW022	MW22	294227.04	6280931.01	22/11/2021	6.03	0.489	5.541	3.12	-	-	MW	Light Brown, Medium turbidity, No odour, Biosheen Appearance	-65.6	140.2	1.07	17.4	2874	7.11
MW023	MW23	294382.96	6280940.34	22/11/2021	6.01	0.542	5.468	4.23	-	-	MW	Light Brown, Medium turbidity, No odour	75	280.8	5.3	16.9	983	7.89
MW024	MW24	294117.34	6279910.89	23/11/2021	19.92	12.696	7.224	15.11	12	15	MW	Clear, Clear turbidity, No odour, No sheen	59.2	265	0.86	21	4355	6.46
MW025	MW25	294621.57	6279687.69	22/11/2021	17.14	10.194	6.946	19.99	16.1	20.1	MW	Light Brown, Low turbidity, No odour, No sheen	94.7	300.5	0.58	22.1	2754	6.7
MW026	MW26	295097.99	6279676.01	22/11/2021	16.9	10.236	6.664	12.04	9.2	12.2	MW	Light Brown, Medium turbidity, No odour, No sheen	131.9	337.7	1.51	20.5	828	6.8
MW027	MW27	295323.49	6279596	23/11/2021	16.42	9.925	6.495	13.09	10.2	13.2	MW	Light Brown, Low turbidity, No odour, No sheen	142.5	348.3	1.64	22.3	2066	6.29
MW028	MW28	294683.43	6279460.9	23/11/2021	16.9	9.879	7.021	11.17	8.2	11.2	MW	Light Brown, Medium turbidity, No odour, No sheen	78	283.8	1.95	21.3	984	7.9
MW030	MW30	293890.76	6280372.74	23/11/2021	21.27	14.654	6.616	16.75	12.5	17.5	MW	Light Brown, Medium turbidity, No odour, No sheen	23.4	229.2	1.1	20.6	1411	6.56
MW032	MW32	295570.79	6279666.9	24/11/2021	17.81	11.987	5.823	14.31	9.5	12.5	MW	Light Brown, Low turbidity, No odour, No sheen	108.1	313.9	1.66	26.5	1608	6.98
MW033	MW33	295611.96	6279607.38	24/11/2021	14.84	9.056	5.784	12.28	14	17	MW	Light Brown, Turbid, No odour, No sheen	138	343.8	3.15	23.9	229.8	6.91
MW034	MW34	295536.17	6279563.44	24/11/2021	16.93	11.029	5.901	16.52	11.85	14.85	MW	Light Brown, Low turbidity, No odour, No sheen	124.1	329.9	4.54	25.7	250.1	7.3
MW036	MW36	294341.38	6280732.64	22/11/2021	19.82	13.816	6.004	22	17.8	21.8	MW	Clear, Low turbidity, No odour, No sheen	52.4	258.2	5.01	19	1513	7.36
MW040	MW40	293108.3	6280034.9	23/11/2021	19.52	11.679	7.841	17.85	15	18	MW	Grey, Low turbidity, Strong organic odour, No sheen	-100.9	104.9	0.62	19.9	730	6.7
MW041	MW41	293163.8	6279663.6	23/11/2021	19.73	11.721	8.009	16.44	13.6	16.6	MW	Light Brown, Medium turbidity, No odour, No sheen	75.6	281.4	1.26	22.5	2922	5.9
MW042	MW42	293889.1	6279460.6	23/11/2021	18.32	11.099	7.221	16.22	13.3	16.3	MW	Light Brown, Medium turbidity, No odour, No sheen	20.2	226	0.9	21.9	2322	6.38
MW043	MW43	294486.5	6279300.8	23/11/2021	16.45	9.355	7.095	17.85	14.9	17.9	MW	Light Brown, Turbid, No odour, No sheen	-28.3	177.5	1.71	22.7	1693	6.57
MW044	MW44	294869.1	6279808.69	-	16.85	-	-	-	14.8	17.8	MW	Unable to be accessed	-	-	-	-	-	-
MW045	MW45	294847.41	6279816.81	-	16.74	-	-	-	14.9	17.9	MW	Unable to be accessed	-	-	-	-	-	-
MW046	MW46	294833.1	6279808.08	22/11/2021	16.71	9.925	6.785	17.92	14.9	17.9	MW	Light Grey, Medium turbidity, No odour, No sheen	52	257.8	1.75	21.6	1810	6.38
MW047	MW47	295748.7	6279257.8	23/11/2021	13.78	8.05	5.73	11.4	9	12	MW	Clear, Clear turbidity, No odour, No sheen	104.3	310.1	4.8	20.9	4696	7.61
MW048	MW48	295812.2	6279149.5	23/11/2021	17.62	11.89	5.73	14.31	10.3	13.3	MW	Light Brown, Low turbidity, No odour, No sheen	108	313.8	1.41	21.3	1689	6.87
MW050	MW50	295604.23	6279379.99	23/11/2021	10.2	4.371	5.829	8.01	-	-	MW	Light Brown, Low turbidity, Weak organic odour, No sheen	-86.2	119.6	1.11	18.9	145.8	7.02
MW051	MW51	295663.28	6279324.95	23/11/2021	10.3	2.836	7.464	5.18	1.5	4.5	MW	Light Brown, Clear turbidity, No odour, No sheen	-85	120.8	0.78	20.2	870	6.98
MW052	MW52	295701.56	6279296.13	23/11/2021	10.71	4.952	5.758	9.48	6	9	MW	Clear, Clear turbidity, No odour, No sheen	111.5	317.3	1.87	19.8	5068	7.66
MW053	MW53	293790.55	6280376.09	24/11/2021	20.95	14.368	6.582	16.54	13.5	16.5	MW	Grey / Brown, Medium turbidity, Distinct rotten egg smell (sulfurous), No sheen	-87.6	118.2	0.7	21.3	1908	6.64
MW054	MW54	293568.72	6280364.7	24/11/2021	24.31	17.676	6.634	19.08	14.9	17.9	MW	Light Brown, Low turbidity, Distinct rotten egg smell (sulfurous), No sheen	-77.8	128	1.31	20.3	2059	6.86
MW056	MW56	293740.76	6280210.8	24/11/2021	19.39	12.746	6.644	15.63	11.5	16.1	MW	Light Brown, Medium turbidity, No odour, No sheen	84.4	290.2	2.21	21.1	3256	6.19
MW057	MW57	293629.71	6280377.1	24/11/2021	22.92	16.274	6.646	20.99	14.2	19.2	MW	Clear, Clear turbidity, No odour, No sheen	136	341.8	2.52	20.7	1110	6.73
MW058	MW58	293530.23	6280380.8	24/11/2021	22.83	16.223	6.607	20.24	14.7	19.2	MW	Light Brown, Medium turbidity, No odour, No sheen	120	325.8	1.64	20.4	3347	6.37
MW059	MW59	293480.72	6280140.4	29/11/2021	20.74	13.956	6.784	19.03	14.7	19.2	MW	Light Brown, Low turbidity, No odour, No sheen	89.3	295.1	2.6	21.6	5239	5.99
MW060	MW60	294517.2	6280068.47	24/11/2021	17.89	11.261	6.629	15.69	12.8	15.8	MW	Light Brown, Medium turbidity, No odour, No sheen	195.2	401	2.41	23.2	575	5.6
MW061	MW61	294487.93	6280054.99	24/11/2021	18.39	11.571	6.819	13.14	10.5	13.5	MW	Clear, Low turbidity, No odour, No sheen	-41.6	164.2	0.6	24.3	704	6.36
MW062	MW62	294332.6	6279813.6	22/11/2021	18.91	11.91	7	13.62	11.5	14.5	MW	Light Brown, Turbid, No odour, No sheen	105.3	311.1	2.28	21.7	13,712	6.97
MW063	MW63	294303	6279910.7	22/11/2021	19.62	12.599	7.021	15	12	14.5	MW	Light Brown, Medium turbidity, No odour, No sheen	117.5	323.3	0.9	24.5	720	5.94
MW064	MW64	295039.63	6279884.38	22/11/2021	17.86	11.175	6.685	14.53	10.2	14.2	MW	Light Brown, Medium turbidity, No odour, No sheen	-7.6	198.2	0.8	21.5	1152	6.63
MW065	MW65	295065.19	6279885.15	22/11/2021	17.95	11.375	6.575	13.15	10	13	MW	Grey, Medium turbidity, Weak HC odour, No sheen	-59.9	145.9	1.02	21.7	1058	6.56
MW066	MW66	295053.17	6279900.81	22/11/2021	18.03	11.403	6.627	14.96	11	15	MW	Light Grey, Low turbidity, No odour, No sheen	21.6	227.4	1.25	22.4	1166	6.53
MW067	MW67	294412.1	6279885.9	22/11/2021	18.6	11.648	6.952	14.66	11.7	14.7	MW	Light Brown, Low turbidity, No odour, No sheen	92.7	298.5	0.69	21.1	6411	6.97
MW068	MW68	294395.3	6279946.1	23/11/2021	19.05	11.692	7.358	15.03	11.9	14.9	MW	Light Brown, Medium turbidity, No odour, No sheen	38.4	244.2	3.1	20.6	792	6.25
MW069	MW69	294434.2	6279913.3	23/11/2021	19.03	11.871	7.159	15.65	13	16	MW	Light Brown, Medium turbidity, No odour, No sheen	184	389.8	1.42	20.2	325.5	6.12
MW070	MW70	294356.89	6279902.05	22/11/2021	19.4	4.107	15.293	5.33	2.3	5.3	MW	Light Brown, Low turbidity, No odour, No sheen	197.9	403.7	3.2	21.2	247.5	5.85
MW071	MW71	294354.36	6279884.54	22/11/2021	19.15	3.673	15.477	5.11	2	5	MW	Light Brown, Medium turbidity, No odour, No sheen	146.7	352.5	4.7	21.3	203	6.66
MW072	MW72	295477	6279497	24/11/2021	-	8.571		13.12	-	-	MW	Clear, Low turbidity, No odour, No sheen	91.1	296.9	2.03	24.7	272.5	5.9
MW073	MW73	295520	6279438	24/11/2021	15.331	8.802	6.529	11.69	10	13	MW	Light Brown, Turbid, No odour, No sheen	-78.6	127.2	0.81	24.2	749	6.55
MW074	MW74	295512	6279403	24/11/2021	15.63	9.248	6.382	12.9	10	14	MW	Clear, Low turbidity, No odour, No sheen	-12.3	193.5	0.62	24	1099	6.64
MW075	MW75	291878.552	6279437.869	25/11/2021	18.097	8.836	9.261	14.34	12	15	MW	Light Brown, Medium turbidity, No odour, No sheen	162.3	368.1	0.9	21.7	468	6.08
MW076	MW76	293138.218	6279522.997	25/11/2021	19.54	11.415	8.125	14.9	15	18	MW	Light Brown, Low turbidity, No odour, No sheen	62.8	268.6	0.78	20.9	405.6	5.89

Table T1 - Gauging and Geochemical Parameters

AECOM

													Field Measurements					
													Redox Er	Redox Eh (Corrected)	Dissolved Oxygen	Temperature	Electric Conductivity	pH
													mV	mV	mg/L	oC	µS/cm	pH_Units
Location	Historical Name	Easting	Northing	Sample Date	Top of Casing (mAHD)	Water Depth (mbTOC)	Water level (mAHD)	Depth of Well (mbTOC)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	Location Type	Observations						
MW077	MW77	292595.262	6279690.929	25/11/2021	19.942	11.529	8.413	21.78	19.5	22	MW	Clear, Clear turbidity, No odour, No sheen	37.8	243.6	1.9	21.1	709	6.17
MW078	MW78	292720.357	6280025.382	25/11/2021	19.807	11.69	8.117	17.36	15	18	MW	Light Brown, Clear turbidity, No odour, No sheen	-20.4	185.4	1.25	22	811	6.7
MW079	MW79	293044.509	6280152.832	24/11/2021	20.453	12.556	7.897	17.9	15	18	MW	Light Brown, Low turbidity, No odour, No sheen	14.5	220.3	0.7	22.9	1836	6.23
MW080	MW80	293069.219	6280381.896	24/11/2021	22.791	15.05	7.741	24.4	21	24	MW	Clear, Clear turbidity, No odour, No sheen	24.2	230	0.7	23.4	1304	6.26
MW081	MW81	291836.876	6280475.99	29/11/2021	7.376	0.386	6.99	5.51	2.6	5.6	MW	Light Grey, Medium turbidity, No odour, No sheen	-21.2	184.6	1.14	18.4	1248	6.64
MW082	MW82	292067.336	6282119.951	25/11/2021	8.781	2.213	6.568	5.75	3	6	MW	Light Brown, Medium turbidity, No odour, No sheen	24.4	230.2	1.12	22.5	1395	6.78
MW086	MW86	295837.01	6279191.36	22/11/2021	10.387	4.692	5.695	6.56	3.6	6.6	MW	Light Brown, Low turbidity, No odour, No sheen	154	359.8	4	20.3	544	6.79
MW091	MW91	296907.799	6279975.912	25/11/2021	8.345	2.483	5.862	6.5	3.5	6.5	MW	Clear, Low turbidity, No odour, No sheen	164.2	370	1.82	22.4	215.1	6.05
MW092	MW92	296742.333	6279302.07	25/11/2021	8.995	5.915	3.08	21.59	19	22	MW	Light Grey, Low turbidity, No odour, No sheen	-53	152.8	0.35	22.6	1873	6.2
MW095	MW95	295974.97	6279345.094	29/11/2021	7.519	1.482	6.037	8.83	5.5	8.5	MW	Orange / Brown, Medium turbidity, No odour, No sheen	27.8	233.6	1.37	19.3	4470	6.72
MW097	MW97	295131.85	6281570.713	29/11/2021	6.465	1.921	4.544	7.24	4.3	7.3	MW	Brown, Medium turbidity, No odour, No sheen, gatic damaged	58.9	264.7	3.25	18.7	167.1	6.94
MW098	MW98	295088.435	6281236.789	29/11/2021	5.511	0	5.511	8.6	5.8	8.8	MW	Brown, Medium turbidity, No odour, No sheen, gatic damaged	-28	177.8	0.64	18.3	2476	6.33
MW099	MW99	294921.971	6280806.1	-	5.669	-	-	-	3.7	6.7	MW	Unable to access, assumed destroyed	-	-	-	-	-	-
MW106	-	293077.188	6280311.859	24/11/2021	22.7	15.033	7.667	29.37	28	31	MW	Clear, Clear turbidity, No odour, No sheen	-68.5	137.3	0.57	23.8	1659	6.77
MW107I	-	293474.066	6280364.689	23/11/2021	22.8	16.218	6.582	25.48	21.8	24.8	MW	Clear, Clear turbidity, No odour, No sheen	124.8	330.6	0.73	21.6	1802	6.26
MW107D	-	293474.066	6280364.689	23/11/2021	23	16.335	6.665	31.08	27.5	30.5	MW	Pale Red, Clear turbidity, No odour, No sheen	-87.4	118.4	1.86	22	1248	7.07
MW108	-	293891.2	6280370.587	23/11/2021	21.3	14.716	6.584	28.51	24.5	27.5	MW	Light Brown, Low turbidity, No odour, No sheen	-46.1	159.7	1	21.9	765	7.06
MW109	-	294177.701	6280908.038	22/11/2021	6.2	0.722	5.478	13.59	10.4	13.4	MW	Light Grey, Low turbidity, Weak organic odour, No sheen	11	216.8	2.5	17.6	4028	6.59
MW110	-	294307.979	6280751.109	22/11/2021	7.6	1.701	5.899	14.45	11.5	14.5	MW	Grey / Brown, Medium turbidity, No odour, No sheen	42.4	248.2	1.63	19.5	3253	6.62
MW111	-	295066.714	6280451.216	25/11/2021	9.4	3.545	5.855	17.31	16	19	MW	Dark Grey, Turbid, Distinct rotten egg smell (sulfurous), No sheen	-105.2	100.6	0.3	20.1	9062	6.9
MW112	-	295582.235	6280480.953	25/11/2021	6.8	1.094	5.706	15.49	12.2	15.2	MW	Light Grey, Medium turbidity, No odour, No sheen	-40.9	164.9	0.91	19.4	3211	6.66
MW113	-	295982.004	6280136.506	29/11/2021	9.4	3.589	5.811	19.05	16	19	MW	Dark Grey, Low turbidity, No odour	-19.8	186	5.01	20.5	3503	7.19
MW114	-	296230.827	6279805.776	29/11/2021	9.7	5.128	4.572	20.03	16.1	19.1	MW	Light Grey, Low turbidity, Distinct rotten egg smell (sulfurous), No sheen	-108.3	97.5	0.95	19.8	1739	6.52
MW117	MW11	293023.421	6279995.436	25/11/2021	19	1.117	17.883	6.01	-	-	MW	Light Brown, Low turbidity, No odour, No sheen. Well cap missing	87.3	293.1	2.42	21.6	307.6	6.78
MW118	MW05	293159.799	6280078.151	25/11/2021	20	11.616	8.384	17.43	-	-	MW	Light Brown, Low turbidity, No odour, No sheen. Well cap missing	-48.7	157.1	0.51	21.4	2627	6.56
MW119	MW02	293189.114	6280023.305	25/11/2021	19	0.265	18.735	6.08	-	-	MW	Brown, Medium turbidity, No odour, No sheen. Well cap missing	116.1	321.9	0.56	21.3	312	6.27
MW120	-	293433	6281346	14/12/2021	-	1.471		15.5	-	-	MW	Dark Brown, Medium turbidity, No odour, No sheen	71.6	277.4	0.56	22.4	1060	6.1
MW121	-	293382	6281862	14/12/2021	-	1.465		15.75	-	-	MW	Dark Brown, Medium turbidity, Weak Hydrogen Sulphide odour, No sheen	-147	58.8	0.16	20.9	505	6.84
SW001	SW001	293475.328	6280121.404	1/12/2021	-	-	-	-	-	-	SW	Yellowish Brown, No odour, Low turbidity, No sheen	168.1	373.9	6.61	22.1	59.3	6.76
SW002	SW002	294183.905	6280713.965	29/11/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Low turbidity, No sheen	28.1	233.9	5.77	18.6	142.6	7.09
SW003	SW003	294128.979	6280891.748	29/11/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Low turbidity, No sheen	-43.7	162.1	1.05	18.9	137.7	6.55
SW005	SW005	295651.105	6281077.754	25/11/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Medium turbidity, No sheen	5.4	211.2	0.81	22	1642	7.62
SW007	SW007	296003.964	6280152.958	29/11/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Low turbidity, No sheen	-26.7	179.1	2.18	18.3	706	7.16
SW008	SW008	296277.208	6279780.573	29/11/2021	-	-	-	-	-	-	SW	Yellowish Brown, No odour, Medium turbidity, No sheen	20.4	226.2	2.59	19.4	462.1	6.35
SW009	SW009	295995.241	6279380.005	29/11/2021	-	-	-	-	-	-	SW	Yellowish Brown, No odour, Low turbidity, No sheen	-21.1	184.7	3.88	19.1	309.5	6.68
SW011	SW011	295662.948	6279423.215	29/11/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Low turbidity, No sheen	34.1	239.9	4.94	20.3	73.2	6.87
SW013	SW013	295683.354	6279679.01	29/11/2021	-	-	-	-	-	-	SW	Yellowish Brown, Organic Odour, Low turbidity, No sheen	-75.3	130.5	0.23	18.5	355.5	6.89
SW014	SW014	295087.696	6280334.806	25/11/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Low turbidity, No sheen	75.3	281.1	1.86	19.5	66.5	5.7
SW015	SW015	295086.581	6281223.141	29/11/2021	-	-	-	-	-	-	SW	Yellowish Brown, No odour, Low turbidity	10.3	216.1	0.83	16.7	694	6.71
SW016	SW016	295128.735	6281560.077	29/11/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Medium turbidity, No sheen	28.7	234.5	0.32	16.7	168.6	6.47
SW018	SW018	297165.365	6279500.683	29/11/2021	-	-	-	-	-	-	SW	Brown, Medium turbidity	58.7	264.5	3.73	19.1	206.6	6.75
SW019	SW019	296171.632	6279019.519	29/11/2021	-	-	-	-	-	-	SW	Brown, Turbid, No sheen	63.2	269	3.26	20	201.4	6.6
SW020	SW020	295008.232	6277347.646	29/11/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Low turbidity, No sheen	51.4	257.2	3.93	19.2	6.64	6.63
SW022	SW022	291835.389	6280460.686	29/11/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Low turbidity, No sheen	29.1	234.9	1.85	18.7	134.6	6.65
SW023	SW023	296740.19	6279262.279	25/11/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Low turbidity, No sheen	72	277.8	5.64	23.9	615	6.9
SW024	SW024	288848.618	6281647.377	1/12/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Low turbidity, No sheen	153.3	359.1	7.37	19.3	139.6	7.1
SW030	SW030	297497.294	6279565.379	29/11/2021	-	-	-	-	-	-	SW	Yellowish Brown, No odour, Low turbidity, No sheen	38.3	244.1	9.46	18	131.7	7.51
SW032	SW032	294144.297	6282040.897	14/12/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Low turbidity, No sheen	95.8	301.6	5.5	28.9	781	7.47
SW035	SW035	290655.83	6280895.65	25/11/2021	-	-	-	-	-	-	SW	Light Olive Brown, No odour, Low turbidity, No sheen	112.5	318.3	6.06	25.1	139.7	7.68
SW037	SW037	294355.93	6280946.49	29/11/2021	-	-	-	-	-	-	SW	Light Olive Brown, Organic Odour, Low turbidity, No sheen	-171.6	34.2	0	18.3	384.5	6.83
SW081	-	294394.241	6282737.485	29/11/2021	-	-	-	-	-	-	SW	Unable to be accessed	-	-	-	-	-	-

Notes

mBTOC	Meters below top of casing
mAHD	Meters Australian height Datum
mV	miliVolts
mg/L	milligrams per Litre
oC	degrees Celsius
µS/cm	micro Siemens per centremetre
Corrected field Redox measurement (Eh [mV]) = Er [mV] + 205.8	
MW	Monitoring Well
SW	Surface Water

Table T2: Groundwater Analytical Results

AECOM

						PFAS Full Suite																																	
						Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS	Sum of US EPA PFAS (PFOS + PFOA)*	Sum of PFAS (WA DER List)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.05	0.05	0.05	0.05	0.05	0.02	0.05	0.05	0.02	0.05	0.02	0.1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.01	0.01	0.01
PFAS NEMP 2020 Drinking Water						**0.07**		**0.56**																														
PFAS NEMP 2020 Freshwater 99%							*0.00023*	*19*																														
Location Code	**Historical Name**	**Field ID**	**Sampled Date**	**Sample Type**	**Lab Report Number**																																		
MW001	MW01	0902_MW001_211129	29/11/2021	Normal	ES2143536	**0.12**	*<0.01*	<0.01	0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.05	<0.02	<0.02	0.17	-	0.15
MW001	MW01	0902_QC112_211129	29/11/2021	Field_D	ES2143536	**0.14**	*<0.01*	<0.01	0.14	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.05	<0.02	<0.02	0.21	-	0.18
MW002	MW02	0902_MW002_211129	29/11/2021	Normal	ES2143536	<0.01	*<0.01*	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	`	<0.05	<0.02	<0.02	<0.01	-	<0.01
MW002	MW02	0902_QC212_211129	29/11/2021	Interlab_D	284165	<0.01	*<0.01*	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.01	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	<0.01	<0.01	-
MW004	MW04	0902_MW004_211125	25/11/2021	Normal	ES2143118	<0.01	*<0.01*	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	-	<0.01
MW005	MW05	0902_MW005_211125	25/11/2021	Normal	ES2143118	**0.12**	*0.04*	<0.01	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.12	-	0.12
MW007	MW07	0902_MW007_211123	23/11/2021	Normal	ES2142389	0.05	*<0.01*	<0.01	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.07	-	0.07
MW008	MW08	0902_MW008_211123	23/11/2021	Normal	ES2142389	**0.61**	*0.05*	<0.01	0.56	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.2	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.1	<0.02	<0.02	0.12	0.02	<0.05	<0.02	<0.02	1.05	-	0.93
MW008	MW08	0902_QC102_211123	23/11/2021	Field_D	ES2142389	**0.83**	*0.06*	<0.01	0.77	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.22	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.12	<0.02	<0.02	0.15	0.02	<0.05	<0.02	<0.02	1.34	-	1.19
MW009	MW09	0902_MW009_211123	23/11/2021	Normal	ES2142389	**0.08**	*0.06*	<0.01	0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.08	-	0.08
MW010	MW10	0902_MW010_211123	23/11/2021	Normal	ES2142389	**0.32**	*0.16*	<0.01	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.07	<0.02	<0.02	0.02	<0.02	<0.05	<0.02	<0.02	0.45	-	0.43
MW012	MW12	0902_MW012_211129	29/11/2021	Normal	ES2143536	**4.4**	*0.98*	0.12	3.42	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.63	<0.1	<0.02	<0.02	<0.02	0.08	0.09	0.72	<0.02	<0.02	0.54	0.13	<0.05	<0.02	<0.02	6.71	-	6.09
MW013	MW13	0902_MW013_211129	29/11/2021	Normal	ES2143536	**1.93**	*0.08*	0.01	1.85	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.15	<0.02	<0.02	0.28	0.02	<0.05	<0.02	<0.02	2.74	-	2.46
MW014	MW14	0902_MW014_211129	29/11/2021	Normal	ES2143536	**1.31**	*0.06*	0.01	1.25	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.37	<0.1	<0.02	<0.02	<0.02	0.02	0.02	0.28	<0.02	<0.02	0.28	0.04	<0.05	<0.02	<0.02	2.33	-	2.03
MW015	MW15	0902_MW015_211129	29/11/2021	Normal	ES2143536	**3.84**	*1.79*	0.07	2.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28	<0.1	<0.02	<0.02	<0.02	0.1	0.04	0.31	<0.02	<0.02	0.28	0.04	<0.05	<0.02	<0.02	4.96	-	4.58
MW016	MW16	0902_MW016_211129	29/11/2021	Normal	ES2143536	<0.01	*<0.01*	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	-	<0.01
MW016	MW16	0902_QC110_211129	29/11/2021	Field_D	ES2143536	<0.01	*<0.01*	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	-	<0.01
MW017	MW17	0902_MW017_211129	29/11/2021	Normal	ES2143536	**7.3**	*1.7*	0.05	5.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56	0.2	<0.02	<0.02	<0.02	0.12	<0.02	0.12	<0.02	<0.02	0.59	0.02	<0.05	<0.02	<0.02	8.96	-	8.25
MW020	MW20	0902_MW020_211124	24/11/2021	Normal	ES2143118	**15.8**	*1.02*	0.24	14.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.41	<0.1	<0.02	<0.02	<0.02	0.19	0.07	0.79	<0.02	<0.02	0.7	0.1	<0.05	<0.02	<0.02	18.3	-	17.4
MW021	MW21	0902_MW021_211124	24/11/2021	Normal	ES2143118	**4.33**	*2.76*	0.21	1.57	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	0.05	0.09	0.41	<0.02	<0.02	0.07	0.12	<0.05	<0.02	<0.02	5.34	-	5.22
MW021	MW21	0902_QC206_211124	24/11/2021	Interlab_D	284165	**3.3**	*2*	0.18	1.3	<0.02	<0.01	0.05	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.05	0.06	<0.02	<0.02	<0.05	0.06	0.07	0.25	0.02	<0.1	0.07	0.09	<0.5	<0.1	<0.02	4.2	2.2	-
MW022	MW22	0902_MW022_211122	22/11/2021	Normal	ES2142389	**10.7**	*5.6*	0.37	5.08	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.66	0.2	<0.02	<0.02	<0.02	0.33	0.18	0.94	0.05	<0.02	0.61	0.24	<0.05	<0.02	<0.02	14.3	-	13.3
MW023	MW23	0902_MW023_211122	22/11/2021	Normal	ES2142389	**0.17**	*0.11*	<0.01	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.19	-	0.19
MW023	MW23	0902_QC200_211122	22/11/2021	Interlab_D	284165	**0.2**	*0.13*	<0.01	0.07	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.01	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	0.21	0.13	-
MW024	MW24	0902_MW024_211123	23/11/2021	Normal	ES2143118	**0.34**	*0.06*	<0.01	0.28	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.3	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.18	<0.02	<0.02	0.14	0.04	<0.05	<0.02	<0.02	1	-	0.86
MW025	MW25	0902_MW025_211122	22/11/2021	Normal	ES2142389	0.05	*0.02*	<0.01	0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.07	-	0.07
MW026	MW26	0902_MW026_211122	22/11/2021	Normal	ES2142389	**4.58**	*0.74*	0.18	3.84	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.78	<0.1	<0.02	<0.02	<0.02	0.15	0.11	0.73	<0.02	<0.02	0.6	0.16	<0.05	<0.02	<0.02	7.29	-	6.54
MW027	MW27	0902_MW027_211123	23/11/2021	Normal	ES2143118	**1.28**	*0.31*	0.02	0.97	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	0.17	<0.02	<0.02	0.17	0.03	<0.05	<0.02	<0.02	1.92	-	1.73
MW028	MW28	0902_MW028_211123	23/11/2021	Normal	ES2142389	**4.43**	*0.12*	0.07	4.31	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.7	0.2	<0.02	<0.02	<0.02	<0.02	0.26	2.18	<0.02	<0.02	1.28	0.43	<0.05	<0.02	<0.02	10.6	-	9.27
MW030	MW30	0902_MW030_211123	23/11/2021	Normal	ES2143118	**2.51**	*0.94*	0.12	1.57	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28	<0.1	<0.02	<0.02	<0.02	0.05	0.05	0.3	<0.02	<0.02	0.21	0.05	<0.05	<0.02	<0.02	3.57	-	3.31
MW030	MW30	0902_QC205_211123	23/11/2021	Interlab_D	284165	**2**	*0.69*	0.09	1.3	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.2	0.04	<0.02	<0.02	<0.05	0.04	0.04	0.2	<0.01	<0.1	0.2	0.04	<0.5	<0.1	<0.02	2.8	0.78	-
MW032	MW32	0902_MW032_211124	24/11/2021	Normal	ES2143118	**17.9**	*4.2*	0.39	13.7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.51	1	<0.02	<0.02	<0.02	0.51	0.27	3.56	<0.02	<0.02	2.42	0.51	<0.05	<0.02	<0.02	29.1	-	26.1
MW033	MW33	0902_MW033_211124	24/11/2021	Normal	ES2143118	**0.12**	*0.02*	<0.01	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.14	-	0.14
MW034	MW34	0902_MW034_211124	24/11/2021	Normal	ES2143118	**0.27**	*0.09*	<0.01	0.18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	<0.1	<0.02	<0.02	<0.02	0.06	<0.02	0.06	<0.02	<0.02	0.03	<0.02	<0.05	<0.02	<0.02	0.41	-	0.38
MW036	MW36	0902_MW036_211122	22/11/2021	Normal	ES2142389	**0.64**	*0.04*	0.01	0.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.14	<0.02	<0.02	0.14	0.04	<0.05	<0.02	<0.02	1.24	-	1.1
MW040	MW40	0902_MW040_211123	23/11/2021	Normal	ES2142389	**116**	*74.7*	**2.54**	41.6	<0.05	<0.05	0.14	0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.39	1.3	0.43	0.02	<0.02	2.5	1.35	12.7	0.07	0.18	5.61	2.6	<0.05	<0.02	<0.02	152	-	143
MW040	MW40	0902_QC103_211123	23/11/2021	Field_D	ES2142389	**199**	*129*	**3.98**	70.4	<0.05	<0.05	0.2	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.1	2	0.68	0.03	0.02	5	1.97	19.2	0.09	0.31	11	4.2	<0.05	<0.02	0.03	258	-	241
MW041	MW41	0902_MW041_211123	23/11/2021	Normal	ES2142389	**0.13**	*0.05*	<0.01	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.13	-	0.13
MW041	MW41	0902_QC202_211123	23/11/2021	Interlab_D	284165	**0.14**	*0.06*	<0.01	0.09	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.01	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	0.15	0.06	-
MW042	MW42	0902_MW042_211123	23/11/2021	Normal	ES2142389	<0.01	*<0.01*	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	-	<0.01
MW043	MW43	0902_MW043_211123	23/11/2021	Normal	ES2142389	0.03	*0.02*	<0.01	0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.11	-	0.11
MW046	MW46	0902_MW046_211122	22/11/2021	Normal	ES2142389	0.03	*<0.01*	<0.01	0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.03	-	0.03
MW046	MW46	0902_QC201_211122	22/11/2021	Interlab_D	284165	0.03	*<0.01*	<0.01	0.03	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.01	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	0.04	<0.01	-
MW047	MW47	0902_MW047_211123	23/11/2021	Normal	ES2143118	**14**	*5.18*	0.38	8.85	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.91	0.1	<0.02	<0.02	<0.02	0.35	0.22	1.77	<0.02	<0.02	1.64	0.32	<0.05	<0.02	<0.02	20.7	-	18.7
MW048	MW48	0902_MW048_211123	23/11/2021	Normal	ES2143118	**0.22**	*0.05*	<0.01	0.17	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.15	<0.02	<0.02	0.06	0.03	<0.05	<0.02	<0.02	0.56	-	0.5
MW050	MW50	0902_MW050_211123	23/11/2021	Normal	ES2143118	**6.26**	*4.96*	0.13	1.3	<0.05	<0.05	0.1	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18	<0.1	<0.02	<0.02	<0.02	0.1	0.05	0.39	<0.02	<0.02	0.03	0.14	0.11	<0.05	<0.02	7.49	-	7.22
MW050	MW50	0902_QC203_211123	23/11/2021	Interlab_D	284165	**5.3**	*4.1*	0.12	1.2	<0.02	<0.01	0.09	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.14	0.08	<0.02	<0.02	<0.05	0.11	0.05	0.29	<0.01	<0.1	0.13	0.1	<0.5	<0.1	<0.02	6.4	4.3	-
MW051	MW51	0902_MW051_211123	23/11/2021	Normal	ES2143118	**895**	*239*	***39.4***	656	<0.05	<0.05	0.14	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	78	16.1	0.1	<0.02	<0.02	59.2	13.8	130	0.15	0.02	63.5	22.2	<0.05	<0.02	<0.02	1320	-	1190
MW052	MW52	0902_MW052_211123	23/11/2021	Normal	ES2143118	**22.1**	*0.33*	0.29	21.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.57	1.4	<0.02	<0.02	<0.02	0.12	0.67	12.7	<0.02	<0.02	5.5	2.2	<0.05	<0.02	<0.02	54.6	-	49
MW053	MW53	0902_MW053_211124	24/11/2021	Normal	ES2143118	**0.2**	*0.08*	0.04	0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	<0.1	<0.02	<0.02	<0.02	<0.02	0.03	0.14	<0.02	<0.02	<0.02	0.08	<0.05	<0.02	<0.02	0.52	-	0.52
MW054	MW54	0902_MW054_211124	24/11/2021	Normal	ES2143118	**0.18**	*0.02*	<0.01	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	<0.05	<0.02	<0.02	0.36	-	0.32

Table T2: Groundwater Analytical Results

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Table T2: Groundwater Analytical Results

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						Inorganics															Metals					
						Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Nitrite + Nitrate as N	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	Bromine (Filtered)	Cations Total	Chloride	Ionic Balance	Nitrate (as N)	Nitrite (as N)	Sodium (Filtered)	Filtered Total Phosphorus as P	Sulfate as SO4 - Turbidimetric (Filtered)	Aluminium (Filtered)	Calcium (Filtered)	Iron (Filtered)	Magnesium (Filtered)	Manganese (Filtered)	Potassium (Filtered)
						mg/L	mg/L	mg/L	µg/L	mg/L	µg/L	meq/L	µg/L	meq/L	mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR						1	1	0.01	1000	1	10	0.01	100	0.01	1	0.01	0.01	0.01	1	0.01	1	0.01	1	0.05	1	0.001	1
PFAS NEMP 2020 Drinking Water																											
PFAS NEMP 2020 Freshwater 99%																											
Location Code	**Historical Name**	**Field ID**	**Sampled Date**	**Sample Type**	**Lab Report Number**																						
MW001	MW01	0902_MW001_211129	29/11/2021	Normal	ES2143536	277	<1	0.08	<1000	277	40	13.9	600	12.9	257	3.82	0.08	<0.01	125	0.17	54	<0.01	75	<0.05	45	0.066	<1
MW001	MW01	0902_QC112_211129	29/11/2021	Field_D	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	MW02	0902_MW002_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	MW02	0902_QC212_211129	29/11/2021	Interlab_D	284165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW004	MW04	0902_MW004_211125	25/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW005	MW05	0902_MW005_211125	25/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW007	MW07	0902_MW007_211123	23/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	MW08	0902_MW008_211123	23/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	MW08	0902_QC102_211123	23/11/2021	Field_D	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW009	MW09	0902_MW009_211123	23/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW010	MW10	0902_MW010_211123	23/11/2021	Normal	ES2142389	155	<1	0.11	<1000	155	40	12	600	11.3	303	3.34	0.11	<0.01	171	0.66	19	<0.01	36	2.65	24	0.702	2
MW012	MW12	0902_MW012_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013	MW13	0902_MW013_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW014	MW14	0902_MW014_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW015	MW15	0902_MW015_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW016	MW16	0902_MW016_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW016	MW16	0902_QC110_211129	29/11/2021	Field_D	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW017	MW17	0902_MW017_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW020	MW20	0902_MW020_211124	24/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021	MW21	0902_MW021_211124	24/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021	MW21	0902_QC206_211124	24/11/2021	Interlab_D	284165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW022	MW22	0902_MW022_211122	22/11/2021	Normal	ES2142389	515	<1	<0.01	<1000	515	170	29.3	2100	34.8	618	8.71	<0.01	<0.01	504	0.42	74	<0.01	126	5.36	80	0.862	2
MW023	MW23	0902_MW023_211122	22/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW023	MW23	0902_QC200_211122	22/11/2021	Interlab_D	284165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW024	MW24	0902_MW024_211123	23/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW025	MW25	0902_MW025_211122	22/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW026	MW26	0902_MW026_211122	22/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW027	MW27	0902_MW027_211123	23/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW028	MW28	0902_MW028_211123	23/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW030	MW30	0902_MW030_211123	23/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW030	MW30	0902_QC205_211123	23/11/2021	Interlab_D	284165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW032	MW32	0902_MW032_211124	24/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW033	MW33	0902_MW033_211124	24/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW034	MW34	0902_MW034_211124	24/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW036	MW36	0902_MW036_211122	22/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW040	MW40	0902_MW040_211123	23/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW040	MW40	0902_QC103_211123	23/11/2021	Field_D	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW041	MW41	0902_MW041_211123	23/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW041	MW41	0902_QC202_211123	23/11/2021	Interlab_D	284165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW042	MW42	0902_MW042_211123	23/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW043	MW43	0902_MW043_211123	23/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW046	MW46	0902_MW046_211122	22/11/2021	Normal	ES2142389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW046	MW46	0902_QC201_211122	22/11/2021	Interlab_D	284165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW047	MW47	0902_MW047_211123	23/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW048	MW48	0902_MW048_211123	23/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	MW50	0902_MW050_211123	23/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	MW50	0902_QC203_211123	23/11/2021	Interlab_D	284165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051	MW51	0902_MW051_211123	23/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW052	MW52	0902_MW052_211123	23/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW053	MW53	0902_MW053_211124	24/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054	MW54	0902_MW054_211124	24/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Groundwater Analytical Results

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							Inorganics														Metals					
							Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Nitrite + Nitrate as N	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	Bromine (Filtered)	Cations Total	Chloride	Ionic Balance	Nitrate (as N)	Nitrite (as N)	Sodium (Filtered)	Filtered Total Phosphorus as P	Sulfate as SO4 - Turbidimetric (Filtered)	Aluminium (Filtered)	Calcium (Filtered)	Iron (Filtered)	Magnesium (Filtered)	Manganese (Filtered)	Potassium (Filtered)
							mg/L	mg/L	mg/L	µg/L	mg/L	µg/L	meq/L	µg/L	meq/L	mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR							1	1	0.01	1000	1	10	0.01	100	0.01	1	0.01	0.01	0.01	1	0.01	1	0.01	1	0.05	1	0.001	1
PFAS NEMP 2020 Drinking Water																												
PFAS NEMP 2020 Freshwater 99%																												
Location Code	**Historical Name**	**Field ID**	**Sampled Date**	**Sample Type**	**Lab Report Number**																							
MW056	MW56	0902_MW056_211124	24/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	MW56	0902_QC106_211124	24/11/2021	Field_D	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	MW57	0902_MW057_211124	24/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	MW58	0902_MW058_211124	24/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	MW59	0902_MW059_211129	29/11/2021	Normal	ES2143536		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	MW60	0902_MW060_211124	24/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	MW61	0902_MW061_211124	24/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	MW62	0902_MW062_211122	22/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	MW63	0902_MW063_211122	22/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064	MW64	0902_MW064_211122	22/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW065	MW65	0902_MW065_211122	22/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW065	MW65	0902_QC101_211122	22/11/2021	Field_D	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW066	MW66	0902_MW066_211122	22/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW067	MW67	0902_MW067_211122	22/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW068	MW68	0902_MW068_211123	23/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW069	MW69	0902_MW069_211123	23/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW070	MW70	0902_MW070_211122	22/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	MW71	0902_MW071_211122	22/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	MW72	0902_MW072_211124	24/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	MW73	0902_MW073_211124	24/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	MW74	0902_MW074_211124	24/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW075	MW75	0902_MW075_211125	25/11/2021	Normal	ES2143118		86	<1	3.28	<1000	86	20	4.3	200	4.59	87	3.26	3.26	0.02	68	0.06	6	<0.01	14	<0.05	11	0.19	1
MW076	MW76	0902_MW076_211125	25/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW077	MW77	0902_MW077_211125	25/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	MW78	0902_MW078_211125	25/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW079	MW79	0902_MW079_211124	24/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW080	MW80	0902_MW080_211124	24/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW080	MW80	0902_QC207_211124	24/11/2021	Interlab_D	284165		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW081	MW81	0902_MW081_211129	29/11/2021	Normal	ES2143536		389	<1	0.02	<1000	389	40	15.8	900	14.3	261	4.87	0.02	<0.01	231	0.06	31	<0.01	36	1.21	30	3.88	<1
MW082	MW82	0902_MW082_211125	25/11/2021	Normal	ES2143118		286	<1	0.02	<1000	286	<10	14.5	800	14.1	292	1.38	0.02	<0.01	187	0.12	28	<0.01	56	0.32	39	0.931	<1
MW086	MW86	0902_MW086_211122	22/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW091	MW91	0902_MW091_211125	25/11/2021	Normal	ES2143118		34	<1	7.78	<1000	34	<10	1.9	<100	1.82	8	-	7.78	<0.01	14	0.05	21	0.01	12	<0.05	5	0.001	8
MW092	MW92	0902_MW092_211125	25/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW095	MW95	0902_MW095_211129	29/11/2021	Normal	ES2143536		502	<1	2.7	<1000	502	<10	51.7	3700	48.7	1370	2.96	2.7	<0.01	790	0.15	144	<0.01	101	<0.05	113	0.017	<1
MW097	MW97	0902_MW097_211129	29/11/2021	Normal	ES2143536		62	<1	0.34	<1000	62	10	1.74	<100	1.57	12	-	0.34	<0.01	9	0.44	8	0.19	14	0.18	4	0.092	6
MW098	MW98	0902_MW098_211129	29/11/2021	Normal	ES2143536		296	<1	0.02	<1000	296	190	30.3	1600	28	800	3.92	0.02	<0.01	374	1.48	87	<0.01	94	6.98	85	0.888	2
MW106	-	0902_MW106_211124	24/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW106	-	0902_QC107_211124	24/11/2021	Field_D	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107D	-	0902_QC204_211123	23/11/2021	Interlab_D	284165		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107D	-	0902_MW107D_211123	23/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107I	-	0902_MW107I_211123	23/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107I	-	0902_QC104_211123	23/11/2021	Field_D	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW108	-	0902_MW108_211123	23/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW108	-	0902_QC105_211123	23/11/2021	Field_D	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW109	-	0902_MW109_211122	22/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW109	-	0902_QC100_211122	22/11/2021	Field_D	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW110	-	0902_MW110_211122	22/11/2021	Normal	ES2142389		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW111	-	0902_MW111_211125	25/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW112	-	0902_MW112_211125	25/11/2021	Normal	ES2143118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW113	-	0902_MW113_211129	29/11/2021	Normal	ES2143536		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW114	-	0902_MW114_211129	29/11/2021	Normal	ES2143536		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T2: Groundwater Analytical Results

AECOM

						Inorganics														Metals					
						Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Nitrite + Nitrate as N	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	Bromine (Filtered)	Cations Total	Chloride	Ionic Balance	Nitrate (as N)	Nitrite (as N)	Sodium (Filtered)	Filtered Total Phosphorus as P	Sulfate as SO4 - Turbidimetric (Filtered)	Aluminium (Filtered)	Calcium (Filtered)	Iron (Filtered)	Magnesium (Filtered)	Manganese (Filtered)	Potassium (Filtered)
						mg/L	mg/L	mg/L	µg/L	mg/L	µg/L	meq/L	µg/L	meq/L	mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR						1	1	0.01	1000	1	10	0.01	100	0.01	1	0.01	0.01	0.01	1	0.01	1	0.01	1	0.05	1	0.001	1
PFAS NEMP 2020 Drinking Water																											
PFAS NEMP 2020 Freshwater 99%																											
Location Code	**Historical Name**	**Field ID**	**Sampled Date**	**Sample Type**	**Lab Report Number**																						
MW114	-	0902_QC213_211129	29/11/2021	Interlab_D	284165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW117	MW11	0902_MW117_211125	25/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW118	MW05	0902_MW118_211125	25/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW119	MW02	0902_MW119_211125	25/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW120	-	0902_MW120_211214	14/12/2021	Normal	ES2145705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW120	-	0902_QC116_211214	14/12/2021	Field_D	ES2145705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW121	-	0902_MW121_211214	14/12/2021	Normal	ES2145705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW121	-	0902_QC216_211214	14/12/2021	Interlab_D	285371	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

LOR	Limit of Reporting
Normal	Primary Sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first time detection of PFOS+PFHxs and/or PFOA above LOR
	Denotes new exceedence of human health screening criteria for PFOS+PFHxs and/or PFOA
	Denotes new exceedence of ecological screening criteria for PFOS and/or PFOA

Table T3 - Surface Water Analytical Results

AECOM

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Table T3 - Surface Water Analytical Results

AECOM

						Inorganics																		Metals						
						Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Nitrite + Nitrate as N	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	Bromine (Filtered)	Cations Total	Chloride	Fluoride	Ionic Balance	Nitrate (as N)	Nitrite (as N)	Filtered Total Phosphorus as P	Sodium (Filtered)	Sulphate	Sulfate as SO4 - Turbidimetric (Filtered)	Aluminium (Filtered)	Calcium (Filtered)	Iron (Filtered)	Magnesium (Filtered)	Manganese (Filtered)	Phosphorus	Potassium (Filtered)
						mg/L	mg/L	mg/L	µg/L	mg/L	µg/L	meq/L	µg/L	meq/L	mg/L	mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR						1	1	0.01	1000	1	10	0.01	100	0.01	1	0.1	0.01	0.01	0.01	0.01	1	1	1	0.01	1	0.05	1	0.001	0.05	1
PFAS NEMP 2020 Freshwater 99%																														
PFAS NEMP 2020 Recreational Water																														
Location Code	**Historical Name**	**Field ID**	**Sample Date**	**Sample Type**	**Lab Report**																									
SW001	SW001	0902_SW001_211126	26/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW002	SW002	0902_SW002_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW003	SW003	0902_SW003_211129	29/11/2021	Normal	ES2143536	50	<1	0.09	<1000	50	60	1.51	<100	1.55	13	-	-	0.09	<0.01	0.26	12	-	7	0.25	12	0.58	4	0.04	-	4
SW005	SW005	0902_SW005_211125	25/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW007	SW007	0902_SW007_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW008	SW008	0902_SW008_211129	29/11/2021	Normal	ES2143536	54	<1	0.18	<1000	54	120	2.86	100	2.63	52	-	-	0.18	<0.01	0.54	30	-	15	0.72	11	1.04	7	0.157	-	8
SW009	SW009	0902_SW009_211129	29/11/2021	Normal	ES2143536	65	<1	0.08	<1000	65	80	3.36	200	3.21	65	-	2.23	0.08	<0.01	0.18	38	-	11	0.11	14	1.11	8	0.353	-	8
SW011	SW011	0902_SW011_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW013	SW013	0902_SW013_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW014	SW014	0902_SW014_211125	25/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW015	SW015	0902_SW015_211129	29/11/2021	Normal	ES2143536	129	<1	0.02	<1000	129	190	8.7	400	7.54	194	-	7.12	0.02	<0.01	0.49	95	-	31	0.08	28	0.64	21	0.86	-	11
SW016	SW016	0902_SW016_211129	29/11/2021	Normal	ES2143536	54	<1	0.41	<1000	54	660	1.93	<100	1.86	20	-	-	0.39	0.02	1.57	12	-	14	0.43	13	1	4	0.162	-	14
SW018	SW018	0902_SW018_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	SW019	0902_SW019_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW020	SW020	0902_SW020_211129	29/11/2021	Normal	ES2143536	37	<1	0.16	<1000	37	120	2.03	<100	2.03	40	-	-	0.16	<0.01	0.39	24	-	8	0.85	8	1.19	5	0.033	-	7
SW022	SW022	0902_SW022_211129	29/11/2021	Normal	ES2143536	54	<1	0.04	<1000	54	50	1.66	<100	1.47	16	-	-	0.04	<0.01	0.16	10	-	6	0.04	11	0.36	4	0.061	-	6
SW023	SW023	0902_SW023_211125	25/11/2021	Normal	ES2143118	50	<1	0.19	<1000	50	110	5.62	300	5.58	149	-	0.34	0.17	0.02	0.18	78	-	20	0.26	15	1.22	15	0.246	-	8
SW024	SW024	0902_SW024_211126	26/11/2021	Normal	ES2143118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW032	SW032	0902_SW032_211214	14/12/2021	Normal	ES2145705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW035	SW035	0902_SW035_211125	25/11/2021	Normal	ES2143118	45	<1	0.02	<1000	45	<10	1.33	<100	1.37	13	-	-	0.02	<0.01	0.04	9	-	3	0.03	10	0.11	4	0.004	-	6
SW037	SW037	0902_SW037_211129	29/11/2021	Normal	ES2143536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

LOR	Limit of Reporting
Normal	Primary Sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first time detection above LOR for PFOS+PFHxS or PFOA
	Denotes new exceedence of human health screening criteria for PFOS+PFHxS or PFOA

Table T4 - Sediment Observations

Location Code	Field ID	Easting	Northing	Sample Depth Range (mbgs)	Sampled Date	Lab Report Number	Sample Comments
SD001	SD001	293475.328	6280121.404	0 - 0.1	26/11/2021	ES2143118	Sandy SILT: Dark brown, fine to medium sand, 30% organics (rootlets)
SD002	SD002	294183.905	6280713.965	0 - 0.1	29/11/2021	ES2143536	Sandy SILT: Dark brown, fine to medium sand, 40% organics (rootlets)
SD003	SD003	294128.979	6280891.748	0 - 0.1	29/11/2021	ES2143536	Sandy SILT: Dark brown, fine to medium sand, trace fine subrounded gravels, 50% organics (rootlets)
SD005	SD005	295651.105	6281077.754	0 - 0.1	25/11/2021	ES2143118	Sandy CLAY: Dark brown, medium plasticity, soft, fine to medium sand, 400% organics (rootlets, leaves, algae)
SD007	SD007	296003.964	6280152.958	0 - 0.1	29/11/2021	ES2143536	Sandy SILT: Dark grey brown, fine sand, 10% organics (rootlets, algae)
SD008	SD008	296277.208	6279780.573	0 - 0.1	29/11/2021	ES2143536	Sandy CLAY: Grey brown, medium plasticity, soft, fine to medium sand, trace organics (rootlets)
SD009	SD009	295995.241	6279380.005	0 - 0.1	29/11/2021	ES2143536	SILT: Grey, trace fine sand, trace organics (leaf matter, and algae)
SD011	SD011	295662.948	6279423.215	0 - 0.1	29/11/2021	ES2143536	Sandy CLAY: Grey brown, medium plasticity, soft, fine to medium sand, trace organics (rootlets)
SD013	SD013	295683.354	6279679.01	0 - 0.1	29/11/2021	ES2143536	Sandy SILT: Dark grey brown, fine to medium sand, trace fine subrounded gravels, 60% organics (algae, leaf matter, rootlets), organic odour
SD014	SD014	295087.696	6280334.806	0 - 0.1	25/11/2021	ES2143118	Sandy SILT: Dark brown, fine to medium sand, 70% organics (rootlets and algae)
SD015	SD015	295086.581	6281223.141	0 - 0.1	29/11/2021	ES2143536	Gravelly SILT: Dark brown, fine to medium sub rounded gravels, 60% organics (leav matter, algae and rootlets).
SD016	SD016, PW004	295128.735	6281560.077	0 - 0.1	29/11/2021	ES2143536	Sandy CLAY: Light grey brown, medium plasticity, soft, fine to medium sand, trace rootlets.
SD018	SD018	297165.365	6279500.683	0 - 0.1	29/11/2021	ES2143536	Sandy CLAY: Grey brown, lmedium plasticity, soft, fine sand, trace rootlets.
SD019	SD019	296171.632	6279019.519	0 - 0.1	29/11/2021	ES2143536	Sandy gravelly CLAY: Brown, high plasticity clay, soft, fine sand, fine subrounded gravels, trace rootlets.
SD020	SD020	295008.232	6277347.646	0 - 0.1	29/11/2021	ES2143536	Sandy CLAY: Grey brown, medium plasticity, soft, fine sand.
SD022	SD022	291835.389	6280460.686	0 - 0.1	29/11/2021	ES2143536	Sandy SILT: Grey brown, fine to medium sand, 20% organics (Rootlets and algae).
SD023	SD023, PW001	296740.19	6279262.279	0 - 0.1	25/11/2021	ES2143118	Sandy SILT: Dark brown, fine to medium sand, 70% organics (rootlets and algae)
SD024	SD024	288848.618	6281647.377	0 - 0.1	26/11/2021	ES2143118	SAND: Light brown, fine to medium sand, poorly sorted, trace silt.
SD030	SD030, PW003	297497.294	6279565.379	0 - 0.1	29/11/2021	ES2143536	SAND: Light brown, fine to medium sand, poorly sorted, trace silt.
SD032	SD032	294144.297	6282040.897	0 - 0.1	14/12/2021	ES2145705	SAND: Light brown, fine to medium sand, poorly sorted, trace silt.
SD035	SD035	290655.83	6280895.65	0 - 0.1	25/11/2021	ES2143118	Sandy CLAY: Brown, high plasticity, soft, fine sand, trace rootlets.

Table T5 - Sediment Analytical Results

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							PFAS Full Suite													
							Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR							0.0002	0.0002	0.0002	0.0002	0.0005	0.0005	0.0005	0.0005	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0002	0.001	0.0002
Location Code	**Historical Name**	**Field ID**	**Sample Depth**	**Sample Date**	**Sample Type**	**Lab Report Number**																	
SD001	SD001	0902_QC209_211126	0 - 0.1	26/11/2021	Interlab_D	284165	11	11	0.11	0.093	1.1	<0.0001	0.12	8.5	<0.001	0.0024	<0.005	0.002	0.0027	<0.001	0.0052	0.0042	0.28
SD001	SD001	0902_SD001_211126	0 - 0.1	26/11/2021	Normal	ES2143118	14.4	14.3	0.104	0.0885	0.718	<0.0005	0.132	5.35	<0.0005	0.002	<0.0005	<0.0005	0.0024	<0.0005	0.0054	<0.001	0.322
SD002	SD002	0902_SD002_211129	0 - 0.1	29/11/2021	Normal	ES2143536	0.631	0.593	0.0028	0.0379	0.0006	<0.0005	0.0007	0.0026	<0.0005	0.0003	<0.0005	<0.0005	<0.0002	<0.0005	0.0028	<0.001	0.0121
SD003	SD003	0902_QC210_211129	0 - 0.1	29/11/2021	Interlab_D	284165	1.1	1.1	0.0054	0.07	0.002	<0.0001	0.0014	0.01	<0.001	0.0002	<0.005	<0.001	<0.0002	<0.001	0.0038	0.002	0.015
SD003	SD003	0902_SD003_211129	0 - 0.1	29/11/2021	Normal	ES2143536	1.4	1.29	0.0094	0.106	0.0009	<0.0005	0.0013	0.003	<0.0005	0.0003	<0.0005	<0.0005	<0.0002	<0.0005	0.0067	0.003	0.0534
SD005	SD005	0902_SD005_211125	0 - 0.1	25/11/2021	Normal	ES2143118	0.0179	0.0167	<0.0002	0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD007	SD007	0902_QC111_211129	0 - 0.1	29/11/2021	Field_D	ES2143536	0.0112	0.01	<0.0002	0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD007	SD007	0902_SD007_211129	0 - 0.1	29/11/2021	Normal	ES2143536	0.0129	0.0121	<0.0002	0.0008	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD008	SD008	0902_QC114_211129	0 - 0.1	29/11/2021	Field_D	ES2143536	0.0046	0.0036	<0.0002	0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD008	SD008	0902_SD008_211129	0 - 0.1	29/11/2021	Normal	ES2143536	0.0067	0.0056	<0.0002	0.0011	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD009	SD009	0902_QC215_211129	0 - 0.1	29/11/2021	Interlab_D	284165	0.05	0.047	0.0003	0.0031	0.0003	<0.0001	0.0001	0.0004	<0.001	<0.0002	<0.005	<0.001	<0.0002	<0.001	0.0002	<0.0002	0.0006
SD009	SD009	0902_SD009_211129	0 - 0.1	29/11/2021	Normal	ES2143536	0.0525	0.0493	0.0003	0.0032	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003	<0.001	0.001
SD011	SD011	0902_SD011_211129	0 - 0.1	29/11/2021	Normal	ES2143536	0.122	0.117	0.0006	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003	<0.001	0.0027
SD013	SD013	0902_SD013_211129	0 - 0.1	29/11/2021	Normal	ES2143536	0.214	0.178	0.0008	0.0358	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0006	<0.001	0.0017
SD014	SD014	0902_SD014_211125	0 - 0.1	25/11/2021	Normal	ES2143118	0.0693	0.0629	0.0005	0.0064	<0.0005	<0.0005	<0.0005	<0.0005	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006	0.0005	<0.001	0.0017
SD015	SD015	0902_SD015_211129	0 - 0.1	29/11/2021	Normal	ES2143536	0.0016	0.0016	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD016	SD016, PW004	0902_SD016_211129	0 - 0.1	29/11/2021	Normal	ES2143536	0.0027	0.0027	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD018	SD018	0902_SD018_211129	0 - 0.1	29/11/2021	Normal	ES2143536	0.0005	0.0005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD019	SD019	0902_SD019_211129	0 - 0.1	29/11/2021	Normal	ES2143536	0.0065	0.0056	<0.0002	0.0009	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD020	SD020	0902_SD020_211129	0 - 0.1	29/11/2021	Normal	ES2143536	0.0047	0.0047	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD022	SD022	0902_SD022_211129	0 - 0.1	29/11/2021	Normal	ES2143536	0.003	0.0027	<0.0002	0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0012
SD023	SD023, PW001	0902_QC109_211125	0 - 0.1	25/11/2021	Field_D	ES2143118	0.009	0.0087	<0.0002	0.0003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD023	SD023, PW001	0902_SD023_211125	0 - 0.1	25/11/2021	Normal	ES2143118	0.0098	0.0094	<0.0002	0.0004	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD024	SD024	0902_SD024_211126	0 - 0.1	26/11/2021	Normal	ES2143118	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD030	SD030, PW003	0902_SD030_211129	0 - 0.1	29/11/2021	Normal	ES2143536	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002
SD032	SD032	0902_SD032_211214	0 - 0.1	14/12/2021	Normal	ES2145705	0.0059	0.0044	<0.0002	0.0015	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003	<0.001	<0.0002
SD035	SD035	0902_SD035_211125	0 - 0.1	25/11/2021	Normal	ES2143118	0.0022	0.0018	<0.0002	0.0004	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002

Notes:

LOR	Limit of Reporting
Normal	Primary Sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Table T5 - Sediment Analytical Results

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																		Inorganics

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Table T6 Historical Groundwater Analytical Results

										PFAS Full Suite																														
										Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctanesulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	FOUEA (70887-84-2)	Sum of PFAS (WA DER list)	Perfluorohexadecanoic acid (PFHxDA)	Perfluorooctadecanoic acid (PFODA)	Sum of PFAS	Sum of PFAS (FFOS + PFOA)	Sum of PFAS (Swedish Water Quality Guideline plus	8:2 diPAP (678-41-1)
										µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR										0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.05	0.01	0.01	0.05	0.01	0.01	0.01	0.02
PFAS NEMP 2020 Drinking Water										0.07		0.56																													
PFAS NEMP 2020 Freshwater 99%											*0.00023*	*19*					*0.00023*																								
Location Code	**Location Alt. Name**	**Field ID**	**Date**	**Sample Type**	**Lab Report Number**																																				
MW001	BBNA-NAA-MW01, MW01	0902_MW01_030717	3/07/2017	Normal	ES1716548	**0.11**	<0.01	<0.01	0.11	0.04	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.15	-	-	0.17	-	-	-
MW001	BBNA-NAA-MW01, MW01	0902_MW001_191108	8/11/2019	Normal	ES1937038	**0.10**	<0.01	<0.01	0.10	0.03	0.03	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.13	-	-	0.16	-	-	-
MW001	BBNA-NAA-MW01, MW01	0902_MW001_200514	14/05/2020	Normal	ES2016714	**0.13**	<0.01	<0.01	0.13	0.03	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.16	-	-	0.18	-	-	-
MW001	BBNA-NAA-MW01, MW01	0902_MW001_201112	12/11/2020	Normal	ES2040321	**0.11**	<0.01	<0.01	0.11	0.03	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.14	-	-	0.14	-	-	-
MW001	BBNA-NAA-MW01, MW01	0902_QC106_201112	12/11/2020	Field_D	ES2040321	**0.09**	<0.01	<0.01	0.09	0.02	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.11	-	-	0.13	-	-	-
MW001	BBNA-NAA-MW01, MW01	0902_MW001_210506	6/05/2021	Normal	ES2117089	**0.12**	<0.01	<0.01	0.12	0.04	0.03	<0.02	<0.01	-	<0.02	<0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.16	-	-	0.19	-	-	-
MW001	BBNA-NAA-MW01, MW01	0902_QC112_211129	29/11/2021	Field_D	ES2143536	**0.14**	<0.01	<0.01	0.14	0.04	0.03	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.18	-	-	0.21	-	-	-
MW001	BBNA-NAA-MW01, MW01	0902_MW001_211129	29/11/2021	Normal	ES2143536	**0.12**	<0.01	<0.01	0.12	0.03	0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.15	-	-	0.17	-	-	-
MW002	BBNA-NAA-MW02A, MW02	0902_MW02_030717	3/07/2017	Normal	ES1716548	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW002	BBNA-NAA-MW02A, MW02	0902_MW002_191108	8/11/2019	Normal	ES1937038	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW002	BBNA-NAA-MW02A, MW02	0902_MW002_200514	14/05/2020	Normal	ES2016714	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW002	BBNA-NAA-MW02A, MW02	0902_QC205_200514	14/05/2020	Interlab_D	RN1275075	-	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	**0.16**	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	<0.01	-	<0.02	<0.05	-	-	-	<0.02
MW002	BBNA-NAA-MW02A, MW02	0902_QC203_201112	12/11/2020	Interlab_D	RN1294813	-	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	<0.01	-	<0.02	<0.05	-	-	-	<0.02
MW002	BBNA-NAA-MW02A, MW02	0902_MW002_210506	6/05/2021	Normal	ES2117089	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW002	BBNA-NAA-MW02A, MW02	0902_QC212_211129	29/11/2021	Interlab_D	284165	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.5	<0.05	<0.01	<0.01	-	-	-	-	<0.01	<0.01	-	-
MW002	BBNA-NAA-MW02A, MW02	0902_MW002_211129	29/11/2021	Normal	ES2143536	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW004	BBNA-NAA-MW03, MW04	0902_MW04_070717	7/07/2017	Normal	ES1716793	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW004	BBNA-NAA-MW04, MW04	0902_MW004_211125	25/11/2021	Normal	ES2143118	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW005	BBNA-BH24/5, MW05	0902_MW05_070717	7/07/2017	Normal	ES1716793	**9.13**	*2.37*	0.18	6.76	0.62	0.53	0.17	*2.37*	-	<0.02	0.2	0.10	0.45	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	10.8	-	-	11.5	-	-	-
MW005	BBNA-BH24/5, MW05	0902_MW005_191108	8/11/2019	Normal	ES1937038	**0.76**	*0.18*	<0.05	0.58	0.06	0.05	<0.05	*0.18*	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	-	0.82	-	-	0.87	-	-	-
MW005	BBNA-BH24/5, MW05	0902_MW005_200513	13/05/2020	Normal	ES2016714	**0.50**	*0.12*	<0.01	0.38	0.03	0.03	<0.02	*0.12*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.53	-	-	0.56	-	-	-
MW005	BBNA-BH24/5, MW05	0902_QC203_200514	14/05/2020	Interlab_D	RN1275075	-	*0.055*	<0.01	0.18	0.014	0.013	<0.01	*0.055*	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	<0.01	<0.01	-	<0.02	<0.05	-	-	-	<0.02
MW005	BBNA-BH24/5, MW05	0902_MW005_201112	12/11/2020	Normal	ES2040321	**0.57**	*0.13*	<0.01	0.44	0.03	0.02	<0.02	*0.13*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.60	-	-	0.62	-	-	-
MW005	BBNA-BH24/5, MW05	0902_QC103_201112	12/11/2020	Field_D	ES2040321	**0.46**	*0.13*	<0.01	0.33	0.04	0.03	<0.02	*0.13*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.50	-	-	0.53	-	-	-
MW005	BBNA-BH24/5, MW05	0902_MW005_210506	6/05/2021	Normal	ES2117098	**0.14**	*0.04*	<0.01	0.10	<0.02	<0.02	<0.02	*0.04*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.14	-	-	0.14	-	-	-
MW005	BBNA-BH24/5, MW05	0902_MW005_211125	25/11/2021	Normal	ES2143118	**0.12**	*0.04*	<0.01	0.08	<0.02	<0.02	<0.02	*0.04*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.12	-	-	0.12	-	-	-
MW007	BBRS-NAA-MW01, MW07	0902-MW07_100717	10/07/2017	Normal	ES1717019	**0.16**	<0.01	<0.01	0.16	0.04	0.03	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.20	-	-	0.23	-	-	-
MW007	BBRS-NAA-MW01, MW07	0902-MW007_191113	13/11/2019	Normal	ES1937511	0.04	<0.01	<0.01	0.04	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.04	-	-	0.04	-	-	-
MW007	BBRS-NAA-MW01, MW07	0902_MW007_200511	11/05/2020	Normal	ES2016273	**0.08**	<0.01	<0.01	0.08	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.08	-	-	0.08	-	-	-
MW007	BBRS-NAA-MW01, MW07	0902_MW007_201110	10/11/2020	Normal	ES2039622	0.03	<0.01	<0.01	0.03	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.03	-	-	0.03	-	-	-
MW007	BBRS-NAA-MW01, MW07	0902_MW007_210503	3/05/2021	Normal	ES2116725	**0.09**	<0.01	<0.01	0.09	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.09	-	-	0.09	-	-	-
MW007	BBRS-NAA-MW01, MW07	0902_QC100_210503	3/05/2021	Field_D	ES2116725	**0.10**	<0.01	<0.01	0.10	0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.12	-	-	0.12	-	-	-
MW007	BBRS-NAA-MW01, MW07	0902_MW007_211123	23/11/2021	Normal	ES2142389	0.05	<0.01	<0.01	0.05	0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.07	-	-	0.07	-	-	-
MW008	BBRW-NAA-MW01, MW08	0902_MW08_300617	30/06/2017	Normal	ES1716548	**0.18**	<0.01	<0.01	0.18	0.05	0.04	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.23	-	-	0.27	-	-	-
MW008	BBRW-NAA-MW01, MW08	0902_MW008_191114	14/11/2019	Normal	ES1937709	**0.16**	<0.01	<0.01	0.16	0.11	0.08	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.35	-	-	0.43	-	-	-
MW008	BBRW-NAA-MW01, MW08	0902_MW008_200511	11/05/2020	Normal	ES2016273	**0.30**	<0.01	<0.01	0.30	0.16	0.09	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.87	-	-	0.96	-	-	-
MW008	BBRW-NAA-MW01, MW08	0902_MW008_201110	10/11/2020	Normal	ES2039622	**0.26**	<0.01	<0.01	0.26	0.11	0.10	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.45	-	-	0.55	-	-	-
MW008	BBRW-NAA-MW01, MW08	0902_QC200_201110	10/11/2020	Interlab_D	RN1294813	-	<0.02	<0.01	0.23	0.096	0.076	<0.01	<0.02	<0.01	<0.01	<0.05	<0.02	0.066	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	<0.01	-	<0.02	<0.05	-	-	-	<0.02
MW008	BBRW-NAA-MW01, MW08	0902_MW008_210503	3/05/2021	Normal	ES2116725	**0.33**	*0.02*	<0.01	0.31	0.16	0.13	<0.02	*0.02*	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.68	-	-	0.81	-	-	-
MW008	BBRW-NAA-MW01, MW08	0902_QC102_211123	23/11/2021	Field_D	ES2142389	**0.83**	*0.06*	<0.01	0.77	0.22	0.15	<0.02	*0.06*	-	<0.02	<0.1	<0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	1.19	-	-	1.34	-	-	-
MW008	BBRW-NAA-MW01, MW08	0902_MW008_211123	23/11/2021	Normal	ES2142389	**0.61**	*0.05*	<0.01	0.56	0.16	0.11	<0.02	*0.05*	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.93	-	-	1.05	-	-	-
MW009	BBRW-BHB5, MW09	0902_MW09_300617	30/06/2017	Normal	ES1716548	**0.16**	*0.06*	<0.01	0.10	<0.02	<0.02	<0.02	*0.06*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.16	-	-	0.16	-	-	-
MW009	BBRW-BHB5, MW09	0902_MW009_210503	3/05/2021	Normal	ES2116725	**0.18**	*0.15*	<0.01	0.03	<0.02	<0.02	<0.02	*0.15*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.18	-	-	0.18	-	-	-
MW009	BBRW-BHB5, MW09	0902_MW009_211123	23/11/2021	Normal	ES2142389	**0.08**	*0.06*	<0.01	0.02	<0.02	<0.02	<0.02	*0.06*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.08	-	-	0.08	-	-	-
MW010	BBA-NAA-MW01, MW10	0902_MW10_300617	30/06/2017	Normal	ES1716548	**0.72**	*0.16*	0.02	0.56	0.07	0.05	<0.02	*0.16*	-	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.91	-	-	0.96	-	-	-
MW010	BBA-NAA-MW01, MW10	0902_MW010_191114	14/11/2019	Normal	ES1937709	**1.29**	*0.88*	0.03	0.41	0.09	0.05	0.02	*0.88*	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	1.47	-	-	1.54	-	-	-
MW010	BBA-NAA-MW01, MW10	0902_MW010_200511	11/05/2020	Normal	ES2016273	**11.0**	*7.62*	0.21	3.41	0.49	0.44	0.15	*7.62*	-	<0.02	<0.1	0.19	1.04	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	13.1	-	-	13.6	-	-	-
MW010	BBA-NAA-MW01, MW10	0902_MW010_201110	10/11/2020	Normal	ES2039622	**0.53**	*0.33*	<0.01	0.20	0.03	0.03	<0.02	*0.33*	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.61	-	-	0.64	-	-	-
MW010	BBA-NAA-MW01, MW10	0902_MW010_210503	3/05/2021	Normal	ES2116725	**8.14**	*4.67*	0.19	3.47	0.54	0.54	0.12	*4.67*	-	<0.02	0.1	0.22	1.19	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	**0.09**	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	10.6	-	-	11.2	-	-	-
MW010	BBA-NAA-MW01, MW10	0902_MW010_211123	23/11/2021	Normal	ES2142389	**0.32**	*0.16*	<0.01	0.16	0.04	0.02	<0.02	*0.16*	-	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.43	-	-	0.45	-	-	-
MW012	SW0257-NAA-MW01, MW12	0902_MW012_030717	3/07/2017	Normal	ES1716548	**6.64**	*0.73*	0.22	5.91	2.13	1.21	0.10	*0.73*	-	<0.02	<0.1	0.42	1.34	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	10.9	-	-	12.2	-	-	-
MW012	SW0257-NAA-MW01, MW12	0902_QC103_030717	3/07/2017	Field_D	ES1716548	**6.72**	*0.73*	0.22	5.99	2.14	1.25	0.11	*0.73*	-	<0.02	<0.1	0.42	1.36	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	11.0	-	-	12.4	-	-	-
MW012	SW0257-NAA-MW01, MW12	0902_MW012_191108	8/11/2019	Normal	ES1937038	**35.4**	*13.8*	**0.99**	21.6	1.87	2.80	0.84	*13.8*	-	<0.02	0.3	0.64	3.10	0.52	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	42.9	-	-	46.6	-	-	-
MW012	SW0257-NAA-MW01, MW12	0902_MW012_200514	14/05/2020	Normal	ES2016714	**31.0**	*7.98*	**1.01**	23.0	3.20	4.11	1.03	*7.98*	-	0.02	0.5	0.94	4.53	0.71	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	41.9	-	-	47.1	-	-	-
MW012	SW0257-NAA-MW01, MW12	0902_MW012_201112	12/11/2020	Normal	ES

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Table T6 Historical Groundwater Analytical Results

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Table T6 Historical Groundwater Analytical Results

										PFAS Full Suite																														
										Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	FOUEA (70887-84-2)	Sum of PFAS (WA DER list)	Perfluorohexadecanoic acid (PFHxDA)	Perfluorooctadecanoic acid (PFODA)	Sum of PFAS	Sum of PFAS (FFOS + PFOA)	Sum of PFAS (Swedish Water Quality Guideline plus	8:2 diPAP (678-41-1)
										µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR										0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.02	0.01	0.05	0.01	0.01	0.01	0.01	0.02
PFAS NEMP 2020 Drinking Water										0.07		0.56																													
PFAS NEMP 2020 Freshwater 99%											*0.00023*	*19*					*0.00023*																								
Location Code	**Location Alt. Name**	**Field ID**	**Date**	**Sample Type**	**Lab Report Number**																																				
MW036	SW0263-NAA-MW01, MW36	0902_MW36_060717	6/07/2017	Normal	ES1716700	**0.92**	*0.06*	<0.01	0.86	0.25	0.23	<0.02	*0.06*	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	1.25	-	-	1.48	-	-	-
MW036	SW0263-NAA-MW01, MW36	0902_MW036_191111	11/11/2019	Normal	ES1937214	**0.48**	*0.03*	<0.01	0.45	0.12	0.09	<0.02	*0.03*	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.65	-	-	0.74	-	-	-
MW036	SW0263-NAA-MW01, MW36	0902_MW036_200513	13/05/2020	Normal	ES2016714	**0.74**	*0.05*	**0.01**	0.69	0.20	0.18	<0.02	*0.05*	-	<0.02	<0.1	**0.03**	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	1.10	-	-	1.28	-	-	-
MW036	SW0263-NAA-MW01, MW36	0902_MW036_201109	9/11/2020	Normal	ES2039622	**0.60**	*0.04*	<0.01	0.56	0.15	0.13	<0.02	*0.04*	-	<0.02	<0.1	<0.02	**0.09**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.84	-	-	0.97	-	-	-
MW036	SW0263-NAA-MW01, MW36	0902_MW036_210507	7/05/2021	Normal	ES2117172	**0.86**	*0.06*	0.01	0.80	0.20	0.18	<0.02	*0.06*	-	<0.02	<0.1	0.04	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	1.25	-	-	1.43	-	-	-
MW036	SW0263-NAA-MW01, MW36	0902_MW036_211122	22/11/2021	Normal	ES2142389	**0.64**	*0.04*	0.01	0.60	0.27	0.14	<0.02	*0.04*	-	<0.02	<0.1	0.04	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	1.10	-	-	1.24	-	-	-
MW040	SW0236-NAA-MW01, MW40	0902_MW40_100717	10/07/2017	Normal	ES1717019	**969**	*872*	**9.46**	97.3	10.5	8.60	7.69	*872*	-	2.56	<0.5	5.85	24.1	3.05	0.61	0.27	<0.10	<0.10	<0.10	<0.25	<0.10	0.62	1.21	<0.10	<0.10	<0.25	<0.10	<0.25	<0.25	<0.10	<0.25	-	1,020	-	-	1,040	-	-	-
MW040	SW0236-NAA-MW01, MW40	0902_MW40_170807	7/08/2017	Normal	ES1719525	**702**	*618*	**7.54**	84.0	7.02	8.29	2.79	*618*	-	0.88	11.8	5.49	20.6	1.46	0.67	0.74	0.05	0.04	<0.02	<0.05	<0.05	0.48	2.02	<0.05	1.17	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	758	-	-	773	-	-	-
MW040	SW0236-NAA-MW01, MW40	0902_QC207_170807	7/08/2017	Interlab_D	172856	-	*570*	**9.8**	88	8.1	8.1	7.4	*570*	-	0.40	3.8	6.2	24	2.8	<0.05	0.1	<0.02	<0.05	<0.1	<0.5	<0.01	0.46	0.60	0.01	0.5	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-	-	-	-	-	-	-	-
MW040	SW0236-NAA-MW01, MW40	0902-MW040_191113	13/11/2019	Normal	ES1937511	**249**	*205*	**3.13**	44.2	7.65	5.64	3.56	*205*	-	1.59	3.7	5.51	15.3	1.46	0.15	0.08	0.05	0.02	<0.02	<0.05	<0.05	0.26	0.40	<0.05	0.40	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	287	-	-	298	-	-	-
MW040	SW0236-NAA-MW01, MW40	0902_MW040_200511	11/05/2020	Normal	ES2016273	**273**	*224*	**3.24**	48.6	4.72	7.14	6.19	*224*	-	3.60	2.0	3.34	13.5	1.46	0.10	0.06	0.05	<0.05	<0.05	<0.12	<0.05	0.20	0.30	<0.05	0.43	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	-	301	-	-	319	-	-	-
MW040	SW0236-NAA-MW01, MW40	0902_QC100_200511	11/05/2020	Field_D	ES2016273	**259**	*216*	**3.13**	42.6	4.44	4.60	4.74	*216*	-	1.20	1.9	3.07	11.7	1.47	0.14	0.06	0.04	0.02	<0.02	<0.05	<0.05	0.19	0.25	<0.05	0.46	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	285	-	-	296	-	-	-
MW040	SW0236-NAA-MW01, MW40	0902_MW040_201110	10/11/2020	Normal	ES2039622	**190**	*157*	**2.09**	32.9	5.57	3.95	1.91	*157*	-	1.01	2.8	2.77	10.2	0.99	0.13	0.04	0.03	0.02	<0.02	<0.05	<0.05	0.13	0.12	<0.05	0.24	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	214	-	-	222	-	-	-
MW040	SW0236-NAA-MW01, MW40	0902_QC100_201110	10/11/2020	Field_D	ES2039622	**182**	*151*	**1.92**	31.3	5.16	3.62	1.85	*151*	-	0.84	2.7	2.66	9.78	0.85	0.12	0.04	0.03	<0.02	<0.02	<0.05	<0.05	0.10	0.08	<0.05	0.21	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	206	-	-	212	-	-	-
MW040	SW0236-NAA-MW01, MW40	0902_MW040_210503	3/05/2021	Normal	ES2116725	**88.0**	*65.2*	**1.23**	22.8	2.34	3.24	1.36	*65.2*	-	0.50	0.8	1.30	5.29	0.53	0.07	0.03	0.03	<0.02	<0.02	<0.05	<0.05	0.10	0.06	<0.05	0.22	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	99.6	-	-	105	-	-	-
MW040	SW0236-NAA-MW01, MW40	0902_QC103_211123	23/11/2021	Field_D	ES2142389	**199**	*129*	**3.98**	70.4	10.1	11.0	5.00	*129*	-	0.68	2.0	4.20	19.2	1.97	0.09	0.03	0.03	0.02	<0.02	<0.05	<0.05	0.20	0.07	<0.05	0.31	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	241	-	-	258	-	-	-
MW040	SW0236-NAA-MW01, MW40	0902_MW040_211123	23/11/2021	Normal	ES2142389	**116**	*74.7*	**2.54**	41.6	6.39	5.61	2.50	*74.7*	-	0.43	1.3	2.60	12.7	1.35	0.07	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.14	0.05	<0.05	0.18	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	143	-	-	152	-	-	-
MW041	SW0234-NAA-MW01, MW41	0902_QC200_191113	13/11/2009	Interlab_D	RN1253933	-	*0.16*	<0.01	0.064	0.012	<0.01	<0.01	*0.16*	<0.01	<0.01	<0.05	<0.02	**0.013**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.02	<0.05	-	-	<0.02
MW041	SW0234-NAA-MW01, MW41	0902_MW41_100717	10/07/2017	Normal	ES1717019	**0.18**	*0.09*	<0.01	0.09	<0.02	<0.02	<0.02	*0.09*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.18	-	-	0.18	-	-	-
MW041	SW0234-NAA-MW01, MW41	0902-MW041_191113	13/11/2019	Normal	ES1937511	**0.29**	*0.21*	<0.01	0.08	<0.02	<0.02	<0.02	*0.21*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.29	-	-	0.29	-	-	-
MW041	SW0234-NAA-MW01, MW41	0902_MW041_200511	11/05/2020	Normal	ES2016273	**0.27**	*0.08*	<0.01	0.19	<0.02	<0.02	<0.02	*0.08*	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.32	-	-	0.32	-	-	-
MW041	SW0234-NAA-MW01, MW41	0902_MW041_201110	10/11/2020	Normal	ES2039622	**0.17**	*0.04*	<0.01	0.13	<0.02	<0.02	<0.02	*0.04*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.17	-	-	0.17	-	-	-
MW041	SW0234-NAA-MW01, MW41	0902_MW041_210503	3/05/2021	Normal	ES2116725	**0.15**	*0.04*	<0.01	0.11	<0.02	<0.02	<0.02	*0.04*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.15	-	-	0.15	-	-	-
MW041	SW0234-NAA-MW01, MW41	0902_QC202_211123	23/11/2021	Interlab_D	284165	**0.14**	*0.06*	<0.01	0.09	<0.01	<0.01	<0.01	*0.06*	-	<0.02	<0.02	<0.02	**0.01**	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-	-	-	-	0.15	0.06	-	-
MW041	SW0234-NAA-MW01, MW41	0902_MW041_211123	23/11/2021	Normal	ES2142389	**0.13**	*0.05*	<0.01	0.08	<0.02	<0.02	<0.02	*0.05*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.13	-	-	0.13	-	-	-
MW042	SW0237-NAA-MW01, MW42	0902_MW42_100717	10/07/2017	Normal	ES1717019	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW042	SW0237-NAA-MW01, MW42	0902-MW042_191113	13/11/2019	Normal	ES1937511	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW042	SW0237-NAA-MW01, MW42	0902_MW042_200511	11/05/2020	Normal	ES2016273	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW042	SW0237-NAA-MW01, MW42	0902_MW042_201110	10/11/2020	Normal	ES2039622	0.04	*0.04*	<0.01	<0.02	<0.02	<0.02	<0.02	*0.04*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.04	-	-	0.04	-	-	-
MW042	SW0237-NAA-MW01, MW42	0902_MW042_210503	3/05/2021	Normal	ES2116725	**0.19**	*0.16*	<0.01	0.03	<0.02	<0.02	<0.02	*0.16*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.19	-	-	0.19	-	-	-
MW042	SW0237-NAA-MW01, MW42	0902_MW042_211123	23/11/2021	Normal	ES2142389	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW043	SW0235-NAA-MW01, MW43	0902_MW43_100717	10/07/2017	Normal	ES1717019	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW043	SW0235-NAA-MW01, MW43	0902-MW043_191113	13/11/2019	Normal	ES1937511	0.04	*0.04*	<0.01	<0.02	<0.02	<0.02	<0.02	*0.04*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.04	-	-	0.04	-	-	-
MW043	SW0235-NAA-MW01, MW43	0902_MW043_200511	11/05/2020	Normal	ES2016273	0.07	*0.07*	<0.01	<0.02	<0.02	<0.02	<0.02	*0.07*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.07	-	-	0.07	-	-	-
MW043	SW0235-NAA-MW01, MW43	0902_MW043_201110	10/11/2020	Normal	ES2039622	**0.12**	*0.12*	<0.01	<0.02	<0.02	<0.02	<0.02	*0.12*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.12	-	-	0.12	-	-	-
MW043	SW0235-NAA-MW01, MW43	0902_MW043_210503	3/05/2021	Normal	ES2116725	0.06	*0.06*	<0.01	<0.02	<0.02	<0.02	<0.02	*0.06*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.06	-	-	0.06	-	-	-
MW043	SW0235-NAA-MW01, MW43	0902_MW043_211123	23/11/2021	Normal	ES2142389	0.03	*0.02*	<0.01	**0.01**	0.08	<0.02	<0.02	*0.02*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.11	-	-	0.11	-	-	-
MW046	SW0241-NAA-MW03, MW46	0902_MW46_060717	6/07/2017	Normal	ES1716700	0.04	<0.01	<0.01	0.04	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.04	-	-	0.04	-	-	-
MW046	SW0241-NAA-MW03, MW46	0902-MW046_191113	13/11/2019	Normal	ES1937511	0.07	*0.02*	<0.01	0.05	<0.02	<0.02	<0.02	*0.02*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.07	-	-	0.07	-	-	-
MW046	SW0241-NAA-MW03, MW46	0902_MW046_200512	12/05/2020	Normal	ES2016714	**0.11**	*0.04*	<0.01	0.07	<0.02	<0.02	<0.02	*0.04*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.11	-	-	0.11	-	-	-
MW046	SW0241-NAA-MW03, MW46	0902_MW046_201110	10/11/2020	Normal	ES2039912	0.03	<0.01	<0.01	0.03	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.03	-	-	0.03	-	-	-
MW046	SW0241-NAA-MW03, MW46	0902_MW046_210504	4/05/2021	Normal	ES2116725	0.04	<0.01	<0.01	0.04	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.04	-	-	0.04	-	-	-
MW046	SW0241-NAA-MW03, MW46	0902_QC201_211122	22/11/2021	Interlab_D	284165	0.03	<0.01	<0.01	0.03	0.01	<0.01	<0.01	<0.01	-	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-	-	-	-	0.04	<0.01	-	-
MW046	SW0241-NAA-MW03, MW46	0902_MW046_211122	22/11/2021	Normal	ES2142389	0.03	<0.01	<0.01	0.03	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.03	-	-	0.03	-	-	-
MW047	SW0061-NAA-MW01, MW47	0902_MW47_060717	6/07/2017	Normal	ES1716700	**22.6**	*8.61*	**0.60**	14.0	4.00	2.71	0.59	*8.61*	-	<0.02	<0.1	0.59	1.74	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	29.8	-	-	33.1	-	-	-
MW047	SW0061-NAA-MW01, MW47	0902-MW047_191113	13/11/2019	Normal	ES1937511	**20.7**	*6.87*	0.56	13.8	2.47	2.70	0.59	*6.87*	-	<0.02	**0.2**	0.50	2.61	**0.32**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	27.3	-	-	30.6	-	-	-
MW047	SW0061-NAA-MW01, MW47	0902_MW047_200511	11/05/2020	Normal	ES2016273	**18.6**	*6.80*	0.47	11.8	1.97	2.63	0.61	*6.80*	-	<0.02	**0.2**	0.41	1.91	0.33	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	23.9	-	-	27.1	-	-	-
MW047	SW0061-NAA-MW01, MW47	0902_MW047_201110	10/11/2020	Normal	ES2039622	**11.2**	*3.93*	0.34	7.22	1.36	2.42	0.39	*3.93*	-	<0.02	0.1	0.31	1.35	0.25	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	14.9	-	-	17.7	-	-	-
MW047	SW0061-NAA-MW01, MW47	0902_MW047_210503	3/05/2021	Normal	ES2116725	**11.7**	*3.08*	0.37	8.66	1.55	1.75	0.32	*3.08*	-	<0.02	0.2	0.34	1.44	0.24	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	15.9	-	-	18.0	-	-	-
MW047	SW0061-NAA-MW01, MW47	0902_MW047_211123	23/11/2021	Normal	ES2143118	**14.0**	*5.18*	0.38	8.85	1.91	1.64	0.35	*5.18*	-	<0.02	0.1	0.32	1.77	0.22	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	18.7	-	-	20.7	-	-	-
MW048	SW0061-NAA-MW02, MW48	0902_MW48_050717	5/07/2017	Normal	ES1716700	**0.20**	<0.01	<0.01	0.20	0.07	0.08	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.34	-	-	0.42	-	-	-
MW048	SW0061-NAA-MW02, MW48	0902-MW048_191113	13/11/2019	Normal	ES1937511	**0.18**	<0.01	<0.01	0.18	0.05	0.05	<0.02	<0.01	-	<0.02	<0.1	<0.02	**0.02**	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.37	-	-	0.42	-	-	-
MW048	SW0061-NAA-MW02, MW48	0902_MW048_200511	11/05/2020	Normal	ES2016273	**0.17**	*0.01*	<0.01	0.16	0.05	0.06	<0.02	*0.01*	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.30	-	-	0.36	-	-	-
MW048	SW0061-NAA-MW02, MW48	0902_MW048_201110	10/11/2020	Normal	ES2039622	**0.09**	<0.01	<0.01	0.09	0.04	0.05	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.18	-	-	0.23	-	-	-
MW048	SW0061-NAA-MW02, MW48	0902_MW048_210503	3/05/2021	Normal	ES2116725	**0.12**	<0.01	<0.01	0.12	0.06	0.05	<0.02	<0.01	-	<0.02	<0.1	<0.02	0.06	<0.

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Table T6 Historical Groundwater Analytical Results

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Table T6 Historical Groundwater Analytical Results

										PFAS Full Suite																															
										Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorooctane sulfonic acid (PFOS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctanesulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	FOUEA (70887-84-2)	Sum of PFAS (WA DER List)	Perfluorohexadecanoic acid (PFHxDA)	Perfluorooctadecanoic acid (PFODA)	Sum of PFAS	Sum of PFAS (FPOS + FPOA)	Sum of PFAS (Swedish Water Quality Guideline plus	8:2 diPAP (678-41-1)
										µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR											0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.05	0.01	0.01	0.02	0.05	0.01	0.01	0.01	0.02
PFAS NEMP 2020 Drinking Water											0.07		0.56																													
PFAS NEMP 2020 Freshwater 99%												*0.00023*	*19*					*0.00023*																								
Location Code	**Location Alt. Name**	**Field ID**	**Date**	**Sample Type**	**Lab Report Number**																																					
MW069	SW0246-NAA-MW03, MW69	0902_MW69_050717	5/07/2017	Normal	ES1716700	**1.02**	*0.65*	0.03	0.37	0.07	0.04	<0.02	*0.65*	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	1.16	-	-	1.20	-	-	-
MW069	SW0246-NAA-MW03, MW69	0902_MW069_191114	14/11/2019	Normal	ES1937709	**0.82**	*0.50*	0.03	0.32	0.05	0.04	<0.02	*0.50*	-	<0.02	<0.1	**0.02**	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.97	-	-	1.01	-	-	-
MW069	SW0246-NAA-MW03, MW69	0902_MW069_200515	15/05/2020	Normal	ES2016935	**1.15**	*0.73*	0.05	0.42	0.08	0.05	**0.02**	*0.73*	-	<0.02	<0.1	**0.02**	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	1.36	-	-	1.43	-	-	-
MW069	SW0246-NAA-MW03, MW69	0902_QC210_200515	15/05/2020	Interlab_D	RN1275075	-	*0.32*	0.024	0.24	0.041	0.026	<0.01	*0.32*	<0.01	<0.01	<0.05	<0.02	0.035	0.012	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	<0.01	-	-	<0.02	<0.05	-	-	-	<0.02
MW069	SW0246-NAA-MW03, MW69	0902_MW069_201111	11/11/2020	Normal	ES2039912	**0.63**	*0.40*	0.02	0.23	0.04	0.03	<0.02	*0.40*	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.73	-	-	0.76	-	-	-
MW069	SW0246-NAA-MW03, MW69	0902_MW069_210505	5/05/2021	Normal	ES2117098	**0.35**	*0.20*	0.01	0.15	0.03	<0.02	<0.02	*0.20*	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.42	-	-	0.42	-	-	-
MW069	SW0246-NAA-MW03, MW69	0902_MW069_211123	23/11/2021	Normal	ES2142389	**0.64**	*0.36*	0.03	0.28	0.08	0.03	<0.02	*0.36*	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.80	-	-	0.83	-	-	-
MW070	SW0246-BH2/MW2, MW70	0902_MW70_050717	5/07/2017	Normal	ES1716700	**3.30**	*1.22*	0.17	2.08	0.54	0.20	**0.07**	*1.22*	-	<0.02	<0.1	**0.18**	**0.28**	**0.06**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	4.53	-	-	4.80	-	-	-
MW070	SW0246-BH2/MW2, MW70	0902_MW070_200515	15/05/2020	Normal	ES2016935	**2.71**	*1.23*	0.20	1.48	0.36	0.16	**0.07**	*1.23*	-	<0.02	**0.1**	0.17	0.32	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	3.96	-	-	4.19	-	-	-
MW070	SW0246-BH2/MW2, MW70	0902_MW070_201113	13/11/2020	Normal	ES2040357	**0.91**	*0.43*	0.05	0.48	0.12	0.04	0.02	*0.43*	-	<0.02	<0.1	0.06	0.12	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	1.29	-	-	1.35	-	-	-
MW070	SW0246-BH2/MW2, MW70	0902_MW070_210504	4/05/2021	Normal	ES2116725	**1.75**	*0.88*	0.10	0.87	0.64	0.13	0.04	*0.88*	-	<0.02	**0.1**	0.18	0.31	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	3.13	-	-	3.30	-	-	-
MW070	SW0246-BH2/MW2, MW70	0902_MW070_211122	22/11/2021	Normal	ES2142389	**2.54**	*0.86*	0.16	1.68	0.64	0.21	0.05	*0.86*	-	<0.02	**0.1**	0.20	0.48	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	4.23	-	-	4.49	-	-	-
MW071	SW0246-BH4/MW4, MW71	0902_MW71_040717	4/07/2017	Normal	ES1716700	**2.04**	*1.72*	0.09	0.32	0.38	0.02	0.03	*1.72*	-	<0.02	<0.1	0.11	0.09	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	2.74	-	-	2.79	-	-	-
MW071	SW0246-BH4/MW4, MW71	0902_MW071_191114	14/11/2019	Normal	ES1937709	**2.35**	*1.76*	0.08	0.59	0.16	0.07	0.04	*1.76*	-	<0.02	**0.1**	0.18	0.19	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	3.11	-	-	3.22	-	-	-
MW071	SW0246-BH4/MW4, MW71	0902_MW071_200515	15/05/2020	Normal	ES2016935	**3.63**	*2.98*	0.10	0.65	0.36	0.09	0.06	*2.98*	-	<0.02	**0.1**	0.30	0.27	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	4.85	-	-	5.00	-	-	-
MW071	SW0246-BH4/MW4, MW71	0902_QC111_200515	15/05/2020	Field_D	ES2016935	**2.38**	*1.93*	0.06	0.45	0.26	0.06	0.04	*1.93*	-	<0.02	<0.1	0.20	0.18	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	3.14	-	-	3.24	-	-	-
MW071	SW0246-BH4/MW4, MW71	0902_MW071_201113	13/11/2020	Normal	ES2040357	**1.89**	*1.53*	0.05	0.36	0.13	0.04	0.03	*1.53*	-	<0.02	<0.1	0.13	0.14	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	2.38	-	-	2.45	-	-	-
MW071	SW0246-BH4/MW4, MW71	0902_MW071_210504	4/05/2021	Normal	ES2116725	**1.31**	*1.00*	0.03	0.31	0.30	0.04	0.02	*1.00*	-	<0.02	<0.1	0.11	0.10	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	1.87	-	-	1.93	-	-	-
MW071	SW0246-BH4/MW4, MW71	0902_MW071_211122	22/11/2021	Normal	ES2142389	**1.41**	*1.07*	0.05	0.34	0.15	0.03	0.03	*1.07*	-	<0.02	<0.1	0.09	0.11	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	1.85	-	-	1.91	-	-	-
MW072	SW0003-BHFF19, MW72	0902_MW72_040717	4/07/2017	Normal	ES1716700	**94.6**	*14.6*	**3.94**	80.0	21.5	11.4	4.64	*14.6*	-	<0.02	1.3	3.67	14.5	0.77	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	140	-	-	156	-	-	-
MW072	SW0003-BHFF19, MW72	0902_MW072_191113	13/11/2019	Normal	ES1937511	**106**	*13.9*	**4.20**	92.6	19.2	15.0	6.24	*13.9*	-	<0.02	2.4	3.36	19.4	1.77	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	157	-	-	178	-	-	-
MW072	SW0003-BHFF19, MW72	0902_MW072_200511	11/05/2020	Normal	ES2016273	**120**	*14.0*	**3.76**	106	16.6	23.8	3.26	*14.0*	-	<0.05	2.2	3.26	17.6	1.85	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05	<0.12	<0.05	<0.12	<0.05	<0.12	-	165	-	-	192	-	-	-
MW072	SW0003-BHFF19, MW72	0902_MW072_201111	11/11/2020	Normal	ES2039912	**84.5**	*14.2*	**2.80**	70.3	15.5	13.4	3.02	*14.2*	-	<0.02	2.2	2.72	15.4	1.57	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	125	-	-	141	-	-	-
MW072	SW0003-BHFF19, MW72	0902_MW072_210505	5/05/2021	Normal	ES2117098	**64.3**	*12.8*	**1.90**	51.5	11.0	8.58	2.12	*12.8*	-	<0.02	0.5	1.74	8.85	1.00	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	89.3	-	-	100	-	-	-
MW072	SW0003-BHFF19, MW72	0902_MW072_211124	24/11/2021	Normal	ES2143118	**130**	*25.6*	**4.16**	104	21.6	15.4	4.15	*25.6*	-	<0.02	2.6	3.80	21.4	2.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	185	-	-	205	-	-	-
MW073	SW0003-MW02, MW73	0902_MW73_040717	4/07/2017	Normal	ES1716700	**35.7**	*3.70*	**1.39**	32.0	3.21	4.20	0.85	*3.70*	-	<0.02	<0.1	0.93	4.89	0.57	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	46.7	-	-	51.7	-	-	-
MW073	SW0003-MW02, MW73	0902_MW073_191128	28/11/2019	Normal	ES1939504	**45.1**	*4.70*	**2.38**	40.4	5.38	9.52	1.93	*4.70*	-	<0.02	**0.3**	2.42	12.3	0.88	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	68.8	-	-	80.2	-	-	-
MW073	SW0003-MW02, MW73	0902_MW073_200512	11/05/2020	Normal	ES2016273	**43.6**	*5.35*	**2.43**	38.3	4.83	5.82	2.34	*5.35*	-	<0.02	1.4	2.44	11.5	0.91	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	67.2	-	-	75.3	-	-	-
MW073	SW0003-MW02, MW73	0902_QC101_200512	11/05/2020	Field_D	ES2016273	**53.1**	*5.66*	**2.48**	47.4	5.81	9.64	2.70	*5.66*	-	<0.02	1.4	2.54	13.2	0.94	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	79.4	-	-	91.8	-	-	-
MW073	SW0003-MW02, MW73	0902_MW073_201111	11/11/2020	Normal	ES2039912	**25.7**	*6.38*	**1.16**	19.3	3.10	2.90	1.60	*6.38*	-	<0.02	1.4	1.00	4.72	0.64	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	37.7	-	-	42.2	-	-	-
MW073	SW0003-MW02, MW73	0902_MW073_210505	5/05/2021	Normal	ES2117098	**25.3**	*3.86*	**0.82**	21.4	2.53	3.23	0.76	*3.86*	-	<0.02	0.4	0.73	4.18	0.47	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	34.4	-	-	38.4	-	-	-
MW073	SW0003-MW02, MW73	0902_MW073_211124	24/11/2021	Normal	ES2143118	**42.8**	*4.32*	**1.72**	38.5	6.10	6.09	1.95	*4.32*	-	<0.02	1.3	2.70	15.7	0.95	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	71.3	-	-	79.3	-	-	-
MW074	SW0003-MW03, MW74	0902_MW74_040717	4/07/2017	Normal	ES1716700	**50.5**	*11.6*	**0.95**	38.9	4.85	6.41	0.72	*11.6*	-	<0.02	<0.1	0.97	5.61	0.84	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	63.7	-	-	70.8	-	-	-
MW074	SW0003-MW03, MW74	0902_MW074_200512	11/05/2020	Normal	ES2016273	**37.6**	*11.0*	**1.52**	26.6	3.71	3.90	2.30	*11.0*	-	<0.02	1.4	1.18	6.32	0.77	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	52.5	-	-	58.7	-	-	-
MW074	SW0003-MW03, MW74	0902_QC201_200512	12/05/2020	Interlab_D	RN1275075	-	*6.3*	**0.97**	21	2.4	2.5	1.4	*6.3*	<0.01	<0.01	1.4	0.92	4.3	0.53	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.05	<0.01	<0.05	<0.01	-	<0.02	<0.05	-	-	-	<0.02
MW074	SW0003-MW03, MW74	0902_MW074_201111	11/11/2020	Normal	ES2039912	**27.1**	*3.48*	**1.13**	23.6	3.56	3.99	1.12	*3.48*	-	<0.02	1.0	1.47	7.49	0.53	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	42.3	-	-	47.4	-	-	-
MW074	SW0003-MW03, MW74	0902_MW074_210505	5/05/2021	Normal	ES2117098	**25.0**	*1.04*	**0.86**	24.0	1.90	2.62	1.58	*1.04*	-	<0.02	**0.1**	0.83	5.34	0.41	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	34.6	-	-	38.8	-	-	-
MW074	SW0003-MW03, MW74	0902_MW074_211124	24/11/2021	Normal	ES2143118	**32.7**	*5.59*	**1.28**	27.1	5.20	4.69	1.36	*5.59*	-	<0.02	2.5	1.43	8.87	0.82	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	52.8	-	-	58.8	-	-	-
MW075	MW75	0902_MW75_271117	27/11/2017	Normal	ES1729991	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW075	MW75	0902_MW075_191115	15/11/2019	Normal	ES1937863	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW075	MW75	0902_MW075_200515	15/05/2020	Normal	ES2016935	**4.30**	*0.04*	0.04	4.26	4.16	3.37	<0.02	*0.04*	-	<0.02	0.4	0.99	5.00	0.54	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	15.4	-	-	18.8	-	-	-
MW075	MW75	0902_MW075_201110	10/11/2020	Normal	ES2039912	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW075	MW75	0902_MW075_210504	4/05/2021	Normal	ES2116725	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW075	MW75	0902_MW075_211125	25/11/2021	Normal	ES2143118	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW076	MW76	0902_MW76_271117	27/11/2017	Normal	ES1729991	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW076	MW76	0902_MW076_191115	15/11/2019	Normal	ES1937863	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW076	MW76	0902_MW076_200515	15/05/2020	Normal	ES2016935	**0.03**	<0.01	<0.01	**0.03**	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	**0.03**	-	-	**0.03**	-	-	-
MW076	MW76	0902_MW076_201109	9/11/2020	Normal	ES2039622	0.03	<0.01	<0.01	0.03	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.03	-	-	0.03	-	-	-
MW076	MW76	0902_MW076_210503	3/05/2021	Normal	ES2116725	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	<0.01	-	-	<0.01	-	-	-
MW076	MW76	0902_MW076_211125	25/11/2021	Normal	ES2143118	0.03	<0.01	<0.01	0.03	<0.02	<0.02	<0.02	<0.01	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.03	-	-	0.03	-	-	-
MW077	MW77	0902_MW77_271117	27/11/2017	Normal	ES1729991	0.07	*0.04*	<0.01	0.03	<0.02	<0.02	<0.02	*0.04*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.07	-	-	0.07	-	-	-
MW077	MW77	0902_QC201_271117	27/11/2017	Interlab_D	1808359	-	*0.01*	<0.01	<0.01	<0.01	<0.01	<0.02	*0.01*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.1	<0.5	<0.5	<0.1	<0.5	-	-	-	-	-	-	-	-
MW077	MW77	0902_MW077_191115	15/11/2019	Normal	ES1937863	0.07	*0.04*	<0.01	0.03	<0.02	<0.02	<0.02	*0.04*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.07	-	-	0.07	-	-	-
MW077	MW77	0902_MW077_200515	15/05/2020	Normal	ES2016935	**0.12**	*0.08*	<0.01	0.04	<0.02	<0.02	<0.02	*0.08*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.12	-	-	0.12	-	-	-
MW077	MW77	0902_MW077_201109	9/11/2020	Normal	ES2039622	**0.11**	*0.07*	<0.01	0.04	<0.02	<0.02	<0.02	*0.07*	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	-	0.11	-	-	0.11	-	-	-
MW077	MW77	0902_MW077_210503	3/05/2021	Normal	ES2116725	0.07	*0.04*	<0.01	0.03	<0.02	<0.02	<0.02	*0

AECOM

Table T6 Historical Groundwater Analytical Results

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AECOM

T7 – Historical Surface Water Results (PFAS)

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AECOM

T7 – Historical Surface Water Results (PFAS)

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AECOM

T7 – Historical Surface Water Results (PFAS)

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AECOM

T7 – Historical Surface Water Results (PFAS)

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T8 – Historical Sediment Results (PFAS)

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T8 – Historical Sediment Results (PFAS)

										PFAS Full Suite																														
										Sum of PFHxS and PFOS	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	FOUEA (70887-84-2)	Sum of PFAS (WA DER List)	Perfluorohexadecanoic acid (PFHxDA)	Perfluorooctadecanoic acid (PFODA)	Sum of PFAS	Sum of PFAS (PFOS + PFOA)	8:2 diPAP (678-41-1)
										mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.001	0.0002	0.002	0.005	0.0001	0.0001	0.002
Location Code	**Field ID**	**Date**	**Sample Type**	**Lab Report Number**																																					
SD014	0902_QC103_191108	8/11/2019	Field_D	ES1937038	0.0009	<0.0002	0.0006	0.0003	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0009	-	-	0.0009	-	-
SD014	0902_SD014_191108	8/11/2019	Normal	ES1937038	0.0004	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0004	-	-	0.0004	-	-
SD014	0902_SD014_200514	14/05/2020	Normal	ES2016935	0.0266	<0.0002	0.0247	0.0019	<0.0002	<0.0002	<0.0002	-	<0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	0.0014	0.0011	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0276	-	-	0.0307	-	-
SD014	0902_SD014_201112	12/11/2020	Normal	ES2040321	0.0151	<0.0002	0.0136	0.0015	0.0005	<0.0002	<0.0002	-	<0.0002	0.002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0006	0.0011	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0176	-	-	0.0198	-	-
SD014	0902_QC202_210506	6/04/2021	Interlab_D	RN1314562	-	<0.01	0.094	0.056	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	0.014	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	-	-	<0.01	<0.04	-	-	<0.02
SD014	0902_SD014_210506	6/05/2021	Normal	ES2117098	0.115	0.0032	0.0625	0.0523	0.0044	0.0054	0.0027	-	0.0010	<0.001	0.0041	0.0151	0.0014	<0.0002	0.0011	0.0028	0.0060	0.0010	<0.0006	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006	-	0.143	-	-	0.163	-	-
SD014	0902_SD014_211125	25/11/2021	Normal	ES2143118	0.0693	0.0005	0.0629	0.0064	0.0005	0.0004	0.0008	-	0.0017	<0.001	<0.0002	0.0022	0.0003	<0.0002	0.0009	0.0032	0.0070	0.0012	0.0010	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006	-	0.0728	-	-	0.0896	-	-
SD015	0902_SD015_030717	3/07/2017	Normal	ES1716547	0.0400	0.0003	0.0367	0.0033	<0.0002	<0.0002	0.0003	-	0.0005	0.001	<0.0002	0.0002	<0.0002	0.0003	0.0003	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.0006	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0421	-	-	0.0437	-	-
SD015	0902_SD015_270218	27/02/2018	Normal	ES1806139	0.0198	0.0003	0.0179	0.0019	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0201	-	-	0.0201	-	-
SD015	0902_QC106_191115	15/11/2019	Field_D	ES1937863	0.0165	<0.0002	0.0153	0.0012	<0.0002	<0.0002	<0.0002	-	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0165	-	-	0.0170	-	-
SD015	0902_SD015_191115	15/11/2019	Normal	ES1937863	0.0237	<0.0002	0.0221	0.0016	<0.0002	<0.0002	<0.0002	-	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0237	-	-	0.0243	-	-
SD015	0902_SD015_200514	14/05/2020	Normal	ES2016935	0.0125	<0.0002	0.0119	0.0006	<0.0002	<0.0002	<0.0002	-	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0125	-	-	0.0128	-	-
SD015	0902_SD015_201112	12/11/2020	Normal	ES2040321	0.0095	<0.0002	0.0088	0.0007	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0095	-	-	0.0095	-	-
SD015	0902_SD015_210505	5/05/2021	Normal	ES2117098	0.0053	<0.0002	0.0048	0.0005	<0.0002	<0.0002	<0.0002	-	0.0009	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0053	-	-	0.0062	-	-
SD015	0902_SD015_211129	29/11/2021	Normal	ES2143536	0.0016	<0.0002	0.0016	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0016	-	-	0.0016	-	-
SD016	0902_QC204_191114	14/11/2009	Interlab_D	RN1253933	-	<0.001	0.0040	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.002	<0.002	<0.005	<0.001	-	<0.002	<0.005	-	-	<0.002
SD016	0902_SD016_030717	30/7/2017	Normal	ES1716547	0.0022	<0.0002	0.0022	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0022	-	-	0.0022	-	-
SD016	0902_SD016_180115	15/01/2018	Normal	ES1804867	0.0006	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0006	-	-	0.0006	-	-
SD016	0902_SD016_270218	27/02/2018	Normal	ES1806139	0.0027	<0.0002	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0027	-	-	0.0027	-	-
SD016	0902_SD016_191114	14/11/2019	Normal	ES1937709	0.0005	<0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0005	-	-	0.0005	-	-
SD016	0902_SD016_200514	14/05/2020	Normal	ES2016935	0.0037	<0.0002	0.0037	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0037	-	-	0.0037	-	-
SD016	0902_SD016_201113	13/11/2020	Normal	ES2040321	0.0015	<0.0002	0.0015	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0015	-	-	0.0015	-	-
SD016	0902_SD016_210505	5/05/2021	Normal	ES2117098	0.0086	0.0005	0.0080	0.0006	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0091	-	-	0.0091	-	-
SD016	0902_SD016_211129	29/11/2021	Normal	ES2143536	0.0027	<0.0002	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0027	-	-	0.0027	-	-
SD018	0902_SD018_040717	4/07/2017	Normal	ES1716547	0.0249	0.0013	0.0235	0.0014	<0.0002	<0.0002	0.0002	-	0.0004	<0.001	0.0005	0.0005	0.0005	0.0011	0.0037	0.0012	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0004	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0277	-	-	0.0350	-	-
SD018	0902_SD018_270218	27/02/2018	Normal	ES1806139	0.0020	0.0004	0.0020	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	0.0004	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0030	-	-	0.0030	-	-
SD018	0902_QC110_191125	25/11/2019	Field_D	ES1938926	0.0064	0.0005	0.0060	0.0004	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	0.0007	0.0011	0.0003	0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0090	-	-	0.0096	-	-
SD018	0902_SD018_191125	25/11/2019	Normal	ES1938926	0.0075	0.0005	0.0071	0.0004	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	0.0006	0.0009	0.0002	0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0097	-	-	0.0103	-	-
SD018	0902_SD018_200515	15/05/2020	Normal	ES2016935	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	-	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	0.0007	<0.0005	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0012	<0.0005	<0.0012	<0.0005	<0.0012	<0.0005	<0.0012	-	<0.0005	-	-	0.0015	-	-
SD018	0902_SD018_201113	13/11/2020	Normal	ES2040321	0.0013	<0.0002	0.0009	0.0004	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	0.0010	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0026	-	-	0.0026	-	-
SD018	0902_SD018_211129	29/11/2021	Normal	ES2143536	0.0005	<0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0005	-	-	0.0005	-	-
SD019	0902_SD019_040717	4/07/2017	Normal	ES1716547	0.0032	<0.0002	0.0027	0.0005	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0032	-	-	0.0032	-	-
SD019	0902_SD019_191125	25/11/2019	Normal	ES1938926	0.0016	<0.0002	0.0016	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0016	-	-	0.0016	-	-
SD019	0902_SD019_200515	15/05/2020	Normal	ES2016935	0.0014	<0.0002	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0014	-	-	0.0014	-	-
SD019	0902_SD019_201113	13/11/2020	Normal	ES2040357	0.0014	<0.0002	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0014	-	-	0.0014	-	-
SD019	0902_SD019_210507	7/05/2021	Normal	ES2117172	0.0042	0.0002	0.0036	0.0006	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0044	-	-	0.0044	-	-
SD019	0902_SD019_211129	29/11/2021	Normal	ES2143536	0.0065	<0.0002	0.0056	0.0009	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0065	-	-	0.0065	-	-
SD020	0902_SD20_131117	13/11/2017	Normal	ES1728583	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	-	-	<0.0002	-	-
SD020	0902_SD020_191125	25/11/2019	Normal	ES1938926	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	-	-	<0.0002	-	-
SD020	0902_SD020_200515	15/05/2020	Normal	ES2016935	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	-	-	<0.0002	-	-
SD020	0902_SD020_201113	13/11/2020	Normal	ES2040357	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	<0.0002	-	-	<0.0002	-	-
SD020	0902_SD020_210507	7/05/2021	Normal	ES2117172	0.0055	<0.0002	0.0055	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0055	-	-	0.0055	-	-
SD020	0902_SD020_211129	29/11/2021	Normal	ES2143536	0.0047	<0.0002	0.0047	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0047	-	-	0.0047	-	-
SD022	0902_SD22_131117	13/11/2017	Normal	ES1728583	0.0014	<0.0002	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	-	0.0058	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	<0.0005	<0.0002	<0.0005	0.0024	<0.0005	<0.0005	-	0.0014	-	-	0.0101	-	-
SD022	0902_QC108_191115	15/11/2019	Field_D	ES1937863	0.0003	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0003	-	-	0.0003	-	-
SD022	0902_SD022_191115	15/11/2019	Normal	ES1937863	0.0004	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0004	-	-	0.0004	-	-
SD022	0902_SD022_200515	15/05/2020	Normal	ES2016935	0.0037	<0.0005	0.0037	<0.0005	<0.0005	<0.0005	<0.0005	-	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0017	0.0014	<0.0005	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0012	<0.0005	<0.0012	<0.0005	<0.0012	<0.0005	<0.0012	-	0.0037	-	-	0.0068	-	-
SD022	0902_SD022_201113	13/11/2020	Normal	ES2040321	0.0051	0.0003	0.0047	0.0004	<0.0002	<0.0002	<0.0002	-	0.0068	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0008	0.0003	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	0.0006	<0.0005	<0.0005	-	0.0054	-	-	0.0144	-	-
SD022	0902_SD022_210505	5/05/2021	Normal	ES2117098	0.0039	0.0002	0.0036	0.0003	<0.0002	<0.0002	<0.0002	-	0.0032	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	0.0012	<0.0005	<0.0005	-	0.0041	-	-	0.0095	-	-
SD022	0902_SD022_211129	29/11/2021	Normal	ES2143536	0.0030	<0.0002	0.0027	0.0003	<0.0002	<0.0002	<0.0002	-	0.0012	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0030	-	-	0.0045	-	-
SD023	0902_QC180_131117	13/11/2017	Field_D	ES1728583	0.0134	<0.0002	0.0126	0.0008	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0003	0.0004	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0136	-	-	0.0145	-	-
SD023	0902_SD23_131117	13/11/2017	Normal	ES1728583	0.0166	<0.0002	0.0158	0.0008	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	0.0002	0.0003	<0.0002	<0.0002	0.0002	0.0005	0.0006	<0.0002	<0.0005	<0.0005	<0.0005	0.0010	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0181	-	-	0.0194	-	-
SD023	0902_QC111_180115	15/01/2018	Field_D	ES1802266	0.0006	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0006	-	-	0.0006	-	-
SD023	0902_SD023_180115	15/01/2018	Normal	ES1802266	0.0004	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	-	0.0004	-	-	0.0004	-	-
SD023	0

Appendix C

Calibration Certificates

Appendix C Calibration Certificates

Calibration & Service Report
Interface Probe

Company:	Active Environmental Solutions Hire	**Manufacturer:**	Solinst	**Serial #:**	312160
Address:	Unit 16, 191 Parramatta Road AUBURN NSW 2144	**Instrument/Model:**	122 Interface Probe 60m	**Tape Length:**	60m
Phone:	02 9716 5966 | **Fax**: 02 9716 5988	**Client Company:**		**Client Email:**	
Email:	hire@aesoultions.com.au	**Client Name:**		**Client Phone:**	

Equipment Check

Oil/Water Interface Meter - Solinst 122 Interface Meter

Customer:		**Manufacturer:**	Solinst Interface Meter
Contact:	Milenko	**Instrument:**	Model 122
Order:		**Serial #:**	312160
		Tape length:	60m

Item	Test	Pass	Comments
Battery	Voltage (2 x 9v battery)	✓	Voltage above 7.9v
	Fuses	✓	
	Capacity	✓	
Probe	Decontaminated	✓	
	Condition	✓	
	Operation	✓	
Connectors	Condition	✓	
Tape Check	Condition	✓	New
	Decontaminated	✓	
Instrument Test	At surface level	✓	Tap water and Citronella oil
Speaker	Operation	✓	

Comments

Unit in good condition.

This is to certify that the above instrument has been checked and is in good working order.

Checked By: Milenko Sisic

Check Date: 21/10/2021 **Due for Check:** 21/04/2022

Calibration & Service Report
Gas Monitor

Company: Active Environmental Solutions Hire
Contact: Aleks Todorovic
Address: 2 Merchant Avenue
Thomastown Vic 3074
Phone: 03 9464 2300 | **Fax**: 03 9464 3421
Email: Hire@aesoultions.com.au

Manufacturer:	BW Technologies	**Serial #:**	MA219-029637
Instrument:	BW Max XT II	**Asset #:**	-
Model:	-	**Part #:**	-
Configuration:	OFCH	**Sold:**	-
Wireless:	-	**Last Cal:**	-
Network ID:	-	**Job #:**	-
Unit ID:	-	**Cal Spec:**	Std

Item	Test	Pass/Fail	Comments
Battery	Li Ion	✓	
Charger	Charger, Power supply	✓	
	Cradle	✓	
Pump	Flow	✓	>300 mL/min
Filter	Filter, fitting, etc	✓	
Alarms	Audible, visual, vibration	✓	
Display	Operation	✓	
PCB	Operation	✓	
Connectors	Condition	✓	
Firmware	Version	✓	
Datalogger	Operation	✓	
Monitor Housing	Condition	✓	
Case	Condition/Type	✓	
Sensors			
Oxygen	O_2	✓	
LEL	LEL	✓	
PID		-	
Toxic 1	CO	✓	
Toxic 2	H_2S	✓	
Toxic 3		-	
Toxic 4		-	
Toxic 5		-	

Engineer's Report

Setup, service and calibration for hire

Calibration Certificate

Sensor	Type	Serial No:	Span Gas	Concentration	Traceability Lot #	CF	Reading	
							Zero	Span
Oxygen	O_2	-	Fresh Air	20.9%	WO275862-1		20.9%	
			Oxygen	18.0%				18.0%
LEL	LEL	-	Methane	2.5% (50% LEL)	WO275862-1		0	50%
PID								
Toxic 1	CO	-	Carbon Monoxide	50ppm	WO275862-1		0	50ppm
Toxic 2	H_2S	-	Hydrogen Sulfide	10ppm	WO275862-1		0	10ppm
Toxic 3								
Toxic 4								
Toxic 5								

Calibrated/Repaired by: Milenko Sisic

Date: 19/11/2021

Next due: 19/05/2022

Calibration & Service Report
Gas Monitor

Company:	Active Environmental Solutions Hire	**Manufacturer:**	RAE Systems	**Serial #:**	595-004885
Contact:	Aleks Todorovic	**Instrument:**	MiniRAE Lite	**Asset #:**	-
Address:	2 Merchant Avenue Thomastown Vic 3074	**Model:**	PGM 7350	**Part #:**	-
		Configuration:	VOC	**Sold:**	-
Phone:	03 9464 2300 | **Fax**: 03 9464 3421	**Wireless:**	-	**Last Cal:**	-
Email:	Hire@aesolutions.com.au	**Network ID:**	-	**Job #:**	-
		Unit ID:	-	**Cal Spec:**	Std

Item	Test	Pass/Fail	Comments
Battery	Li Ion	✓	
Charger	Charger, Power supply	✓	
	Cradle	✓	
Pump	Flow	✓	>500 mL/min
Filter	Filter, fitting, etc	✓	
Alarms	Audible, visual, vibration	✓	
Display	Operation	✓	
PCB	Operation	✓	
Connectors	Condition	✓	
Firmware	Version	✓	
Datalogger	Operation	✓	
Monitor Housing	Condition	✓	
Case	Condition/Type	✓	
Sensors			
Oxygen		-	
LEL		-	
PID	10.6eV	✓	
Toxic 1		-	
Toxic 2		-	
Toxic 3		-	
Toxic 4		-	
Toxic 5		-	

Engineer's Report

Setup, service and calibration for hire

Calibration Certificate

Sensor	Type	Serial No:	Span Gas	Concentration	Traceability Lot #	CF	Reading	
							Zero	Span
Oxygen								
LEL								
PID	10.6eV	-	Isobutylene	100 PPM	4835-1-1	1	0	100 PPM
Toxic 1								
Toxic 2								
Toxic 3								
Toxic 4								
Toxic 5								

Calibrated/Repaired by: Milenko Sisic

Date: 19/11/2021

Next due: 19/05/2022

Head Office – **Melbourne**
2 Merchant Avenue
Thomastown VIC 3074 Australia
T: +61 3 9464 2300

NSW Office – **Ashfield**
Level 2, Suite 14, 6 - 8 Holden Street
Ashfield NSW 2131 Australia
T: +61 2 9716 5966

WA Office – **Malaga**
Unit 6, 41 Holder Way
Malaga WA 6090 Australia
T: +61 8 9249 5663

QLD Office – **Banyo**
Unit 17, 23 Ashtan Place
Banyo QLD 4014 Australia
T: +61 7 3267 1433

sales@aesolutions.com.au

www.aesolutions.com.au

Calibration & Service Report
Water Quality Meter

Company:	Active Environmental Solutions Hire	**Manufacturer:**	YSI	**Serial #:**	14J101920
Address:	Unit 16, 191 Parramatta Road AUBURN NSW 2144	**Instrument/Model:**	WQM Professional Plus w/ Quatro Cable	**Cable Length:**	10 m
Phone:	02 9716 5966 | **Fax**: 02 9716 5988	**Client Company:**		**Client Email:**	
Email:	hire@aesoultions.com.au	**Client Name:**		**Client Phone:**	

Item	Test	Pass	Comments
Battery	2 x Alkaline C-cells	✓	Voltage reading above 2.9V
	Battery Saver	✓	Automatically turns off after 60 minutes if not used
Connections	Condition	✓	Good, clean
Cable	Condition	✓	Clean, no tears
Display	Operation	✓	
Firmware	Version	✓	4.0.0
Keypad	Operational	✓	
Display	Screen	✓	
Unit	Condition, seals and O-rings	✓	
Monitor housing	Condition	✓	
pH			
Condition		✓	Good, clean
pH millivolts for pH7 calibration range 0 mV ± 50 mV		✓	
pH 4 mV range + 165 to + 180 from 7 buffer mV value		✓	
pH slope		✓	55 to 60 mV/pH; ideal 59mV
Response time < 90 seconds		✓	
Calibrated and conforms to manufacturer's specifications		✓	
ORP			
Condition		✓	Good, clean
Response time < 90 seconds		✓	
within ± 80mv of reference Zobell Reading		✓	
Calibrated and conforms to manufacturer's specifications		✓	Variance range ± 20mV
Conductivity			
Condition		✓	Good, clean
Temperature		✓	°C
Conductivity cell constant 5.0 ± 1.0 in GLP file		✓	
Clean sensor reads less than 3 uS/cm in dry air		✓	
Calibrated and conforms to manufacturer's specifications		✓	µs/cm
Dissolved Oxygen			
Condition		✓	Good, clean
DO sensor in use		✓	Polarographic
1.25 mil PE membrane (yellow membrane):		✓	
DO Sensor Value		✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA
Calibrated and conforms to manufacturer's specifications		✓	ppm

				Instrument Readings		
Parameter	**Standards**	**Reference**	**Calibration Point**	**Before**	**After**	**Units**
Temperature	Center 370 Thermometer	Room Temp.	21.3	N/A	21.4	°C
pH	pH 4.00	363894	4.01	3.90	4.01	pH
pH	pH 7.00	363895	7.00	6.78	7.00	pH
Conductivity	2760 µs/cm at 25°C	362912	2760	2779	2760	µs/cm
ORP (Ref. check only)	Zobell A & B	358011 & 363903	234.1	238.7	234.1	mV
Zero Dissolved Oxygen	NaSO3 in distilled water	372164; V070819	0.0	-1.5	0.0	%
100% Dissolved Oxygen	100% Air Saturation	Fresh Air	100.0	87.3	100.0	%

Calibrated By: Milenko Sisic

Calibration Date: 19/11/2021 **Calibration Due:** 19/05/2022

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	RAAF Richmond OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	Defence
PM Name:	Geoff Tredinnick	**Fieldwork Staff Name:**	AD & AS

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	AES
Make and Model:	YSI Pro DSS
Serial Number:	18D104242

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	22-11-21 0700				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	4.00	2640	0.00	
Calibration Reading:	7.01	4.00	2648	0.01	
Calibration Temperature:	18.0	17.2	17.5	18.1	

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Bump Test Reading:					
Bump Test Temperature:					

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Day 1 of use –

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature	Date
	22-11-21

Distribution: Project Central File

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	RAAF Richmond OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	Defence
PM Name:	Geoff Tredinnick	**Fieldwork Staff Name:**	AD & AS

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	AES
Make and Model:	YSI Pro DSS
Serial Number:	18D104242

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	23/11/21 0645				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	4.00	2640	0.00	
Calibration Reading:	6.99	4.01	2599	0.00	
Calibration Temperature:	14.2	15.1	14.8	14.9	

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Bump Test Reading:					
Bump Test Temperature:					

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature — Date: 23-11-21

Distribution: Project Central File

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	RAAF Richmond OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	Defence
PM Name:	Geoff Tredinnick	**Fieldwork Staff Name:**	AD & AS

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	AES
Make and Model:	YSI PRO DSS
Serial Number:	18D104242

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	24-11-21 0650				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	4.00	2640	0.00	
Calibration Reading:	7.00	4.06	2625	0.00	
Calibration Temperature:	17.1	16.2	16.8	17.4	

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	10.00				
Bump Test Reading:	10.02				
Bump Test Temperature:	16.8				

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature — Date: 24/11/21

Distribution: Project Central File

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	RAAF Richmond OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	Defence
PM Name:	Geoff Tredinnick	**Fieldwork Staff Name:**	AD & AS

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	AES
Make and Model:	YSI Pro DSS
Serial Number:	18D104242

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	25-11-21 0715				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	4.00	2640	0.00	
Calibration Reading:	7.07	4.02	2701	0.01	
Calibration Temperature:	18.2	17.9	17.8	18.1	

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Bump Test Reading:					
Bump Test Temperature:					

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature — Date: 25/11/21

Distribution: Project Central File

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	RAAF Richmond OMP	**Project Number:**	60612562
Project Location:	Accomodation - Richmond	Client:	Defence
PM Name:	Geoff Tredinnick	**Fieldwork Staff Name:**	AD & AS

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	AES
Make and Model:	YSI
Serial Number:	18D104247

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	26-11-21 0630				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	7.00	4.00	2640	0.00	
Calibration Reading:	6.99	4.02	2649	0.02	
Calibration Temperature:	14.8	15.1	14.9	14.9	

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Bump Test Reading:					
Bump Test Temperature:					

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature — Date: 26/11/21

Distribution: Project Central File

Appendix D

Analytical Data Validation

Appendix D Analytical Data Validation

Project number:	60612562	**Validation by:**	[redacted]	**Date:** 15/12/2021
Client:	Department of Defence	**Reviewed by:**	[redacted]	**Date:** 14/01/2022
Site:	RAAF Base Richmond			
Matrix type:	Soil / Groundwater / Surface Water	**Project Manager:**	[redacted]	
Primary samples:	88 Groundwater samples / 22 Surface water samples / 21 Sediment samples			
Laboratory:	ALS (Primary) Envirolab (Secondary)			
Lab report references:	ES2142389, ES2143118, ES2143536, ES2145705, 284165, 285371			
Key Issues:	No issues were identified that have the potential to impact upon the reliability of the Data. AECOM considers that the field procedures and laboratory QA/QC processes employed were appropriate for the purposes of the investigation.			
Field QA / QC				
Field DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2021).			
Sampling personnel	Sampling was conducted by Andrew Spoor, Ayrton Donegan and Sebastien McCulloch between 22 to 29 November and 14 December 2021. Field personnel were all suitably qualified and experienced AECOM Environmental Scientists.			
Handling and Preservation	Primary and duplicate samples for groundwater, surface water and sediment were placed in a chilled cooler between sampling and analysis. Samples were received preserved and chilled at the laboratory, with all containers received within the recommended temperature range (4 ± 2°C) with the exception of batches: • ES2142389 which was received at 1.0°C • ES2143536 which was received at 0.2°C • ES2145705 which was received at 16.3°C While the received temperatures were outside the recommended range, they are not considered to impact upon the reliability of the results given that samples were transported to the laboratory within 48 hours of being collected. The inter-laboratory duplicate samples were received at the secondary laboratory (Envirolab) within the recommended temperature range (4 ± 2°C). All samples were received at the laboratory in appropriate sample containers.			

Project number:	60612562	**Validation by:**	[redacted]	**Date:** 15/12/2021
Client:	Department of Defence	**Reviewed by:**	[redacted]	**Date:** 14/01/2022
Site:	RAAF Base Richmond			
Matrix type:	Soil / Groundwater / Surface Water	**Project Manager:**	[redacted]	
Primary samples:	88 Groundwater samples / 22 Surface water samples / 21 Sediment samples			
Laboratory:	ALS (Primary) Envirolab (Secondary)			
Lab report references:	ES2142389, ES2143118, ES2143536, ES2145705, 284165, 285371			

Calibration of Equipment	Measurement of groundwater geochemical parameters was undertaken using the YSI WQM Professional Plus, which was calibrated by the supplier prior to use, in accordance with manufacturer's instructions and "bump tested" in the field at the beginning of each sampling day Measurement of depth to groundwater was undertaken by an interface probe, which was serviced by the supplier AES prior to use. All calibration and service certificates are presented in **Appendix C**.
Sampling Methodology	The majority of groundwater samples were collected using pre-deployed 1.1L HydraSleeves™, with collected water deposited directly into laboratory prepared bottles. Groundwater samples MW007, MW009, MW072, MW074, MW120 and MW121 were collected using dedicated disposable bailers as HydraSleeves™, were either not present, did not deploy appropriately or insufficient water was available. Following laboratory instructions, the sample bottles were filled to the top, caps immediately applied and samples stored on ice for preservation. Water quality parameters were collected down-well via a submerged water quality meter and were recorded once field values had stabilised. Surface water samples were either collected from directly beneath the surface to limit the infiltration of sediment into samples or using dedicated, disposable bailers where access was limited. Smaller vials were filled from larger sampling containers, to ensure preservative acids did not spill. Following laboratory instructions, the sample bottles were filled to the top, caps immediately applied and samples stored on ice for preservation. Sediment samples were collected using a trowel and deposited directly into laboratory prepared containers. Following laboratory instructions, the sample containers were filled to the top, caps immediately applied and samples stored on ice for preservation. After each sampling at each location, the water quality meter and interface probe were decontaminated using Liquinox and the consumables (nitrile gloves, HydraSleeves™ and/or bailers) were disposed of.

Project number:	60612562	**Validation by:**	[redacted]	**Date:** 15/12/2021
Client:	Department of Defence	**Reviewed by:**	[redacted]	**Date:** 14/01/2022
Site:	RAAF Base Richmond			
Matrix type:	Soil / Groundwater / Surface Water	**Project Manager:**	[redacted]	
Primary samples:	88 Groundwater samples / 22 Surface water samples / 21 Sediment samples			
Laboratory:	ALS (Primary) Envirolab (Secondary)			
Lab report references:	ES2142389, ES2143118, ES2143536, ES2145705, 284165, 285371			

Chain of Custody (COC)	All samples taken were reported on the Chain of Custody documents (COC) and subsequent email amendments analysed for requested analytes.
Rinsate Blank	Rinsate blank samples were collected at a frequency of one per day of sampling (seven in total). Rinsates were either collected from the final rinse of the interface probe or a clean, unused nitrile glove. The results of the rinsate analysis indicated that concentrations of PFAS were below the limit of reporting (LOR) for all analytes tested. Rinsate results are presented in **Table D3** in **Appendix D**.
Frequency of field QC	Field duplicate and triplicates (inter-laboratory duplicates) were to be collected at a frequency of one in ten primary samples (10%). In total, fourteen field duplicates were collected for water samples (12.7%), and three field duplicate for sediment (14.3%) were collected, meeting the DQI. Fourteen inter-laboratory duplicates were collected for water samples (12.7%), and three triplicates for sediment (14.3%) were collected, meeting the DQI.
Laboratory QA / QC	
Laboratory DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2021).
Tests requested / reported	All primary water samples were analysed for the Per- and Polyfluoroalkyl Substances (PFAS) extended suite, with approximately 20% of all samples analysed for nutrients (ammonia, nitrate, nitrite, phosphorous) and metals (aluminium, bromine, iron, manganese). All primary sediment samples were analysed only for the PFAS extended suite. All sample request of analysis was reported on the Chain of Custody (COC). Confirmation of results were requested and adopted for the below samples; • 0902_MW078_211125 • 0902_MW051_211123 • 0902_MW117_211125 • 0902_MW118_211125

Project number:	60612562	**Validation by:**	[redacted]	**Date:** 15/12/2021
Client:	Department of Defence	**Reviewed by:**	[redacted]	**Date:** 14/01/2022
Site:	RAAF Base Richmond			
Matrix type:	Soil / Groundwater / Surface Water	**Project Manager:**	[redacted]	
Primary samples:	88 Groundwater samples / 22 Surface water samples / 21 Sediment samples			
Laboratory:	ALS (Primary) Envirolab (Secondary)			
Lab report references:	ES2142389, ES2143118, ES2143536, ES2145705, 284165, 285371			

Holding time compliance	All samples were extracted and analysed within recommended holding times, with the exception of nutrients in batch **284165**. The holding time exceedance is not considered to affect the validity of the results given that the majority of nutrients results were reported within the same order of magnitude as the primary sample results. Furthermore, as the primary objective of the OMP is to monitoring changes in the nature and extent of PFAS at the Site, the holding time breach for nutrients is not considered to impact upon the delivery of the OMP.
Laboratory Accreditation	The primary laboratory was ALS Environmental Pty Ltd (Sydney) a National Association of Testing Authorities (NATA) accredited laboratory (Accreditation No. 825). The secondary laboratory used for the project was Envirolab (Envirolab, Sydney), also a NATA accredited laboratory (accreditation number 2901). All analysis was completed using NATA accredited methods.
Frequency of laboratory QC	The primary laboratory (ALS), reported a sufficient frequency of quality control samples with the exception of duplicates for the following workorders: • **ES2145705** - Moisture content in the soil laboratory duplicate (actual rate: 7.69%, expected rate: 10%). • **ES2143118** - Moisture content in the soil laboratory duplicate (actual rate: 8.33%, expected rate: 10%), and - Major Cations - Dissolved in the water laboratory duplicate (actual rate: 7.41%, expected rate 10%), The accuracy of the data can be assessed as acceptable based on method blank, laboratory duplicates, LCS recoveries, which were reported at or above the required frequencies and within control limits.
Method Blank	All method blank concentrations were reported <LOR for the analytes tested from the primary laboratory, ALS. This is presented in the laboratory Quality Control Report.
Laboratory duplicate RPDs	The reported laboratory duplicate Relative Percentage Differences (RPD) were within laboratories control limits. The laboratory duplicate RPDs are presented in the laboratory Quality Control Report.

Project number:	60612562	**Validation by:** [redacted]	**Date:** 15/12/2021
Client:	Department of Defence	**Reviewed by:** [redacted]	**Date:** 14/01/2022
Site:	RAAF Base Richmond		
Matrix type:	Soil / Groundwater / Surface Water	**Project Manager:** [redacted]	
Primary samples:	88 Groundwater samples / 22 Surface water samples / 21 Sediment samples		
Laboratory:	ALS (Primary) Envirolab (Secondary)		
Lab report references:	ES2142389, ES2143118, ES2143536, ES2145705, 284165, 285371		

Laboratory control spike recovery	Laboratory Control Spike (LCS) recoveries were within AECOM limits (70-130%) and / or laboratory analyte specific acceptance criteria (ASAC). The laboratory control spike recovery percentages are presented in the laboratory QC Reports.
Matrix spike recovery	The reported laboratory Matrix Spike (MS) recoveries were within the laboratory control limits for PFAS analytes with the exception of a number of PFAS compounds in batches ES2142389, ES2143118, ES2143536, ES2145705 and nutrients analytes in batches ES2142389, ES2143118, ES2143536 where the MS recovery was not determined due to background levels being greater than or equal to 4x spike level. Given the low limits of reporting for these PFAS compounds, AECOM considers that this would not significantly impact upon the reliability of the data. Matrix Spike recovery was less than the lower data quality objective for the following in report ES2145705: • 10:2 Fluorotelomer sulfonic acid (10:2 FTS) – 26.4% (69.2-143%)
Surrogate spike recovery	The reported surrogate spike recoveries were within laboratory control limits (60% - 120%).
QA / QC Data Evaluation	
Comparison of Field Observations and Laboratory Results	No anomalous results between field observations and analysis results were noted.
Data transcription	A check of the laboratory results identified no anomalies within the electronic data, the laboratory reports, and tables generated by AECOM.
Limits of reporting	LORs were sufficiently low to enable assessment against adopted guideline criteria.

Project number:	60612562	**Validation by:**	[redacted]	**Date:** 15/12/2021
Client:	Department of Defence	**Reviewed by:**	[redacted]	**Date:** 14/01/2022
Site:	RAAF Base Richmond			
Matrix type:	Soil / Groundwater / Surface Water	**Project Manager:**	[redacted]	
Primary samples:	88 Groundwater samples / 22 Surface water samples / 21 Sediment samples			
Laboratory:	ALS (Primary) Envirolab (Secondary)			
Lab report references:	ES2142389, ES2143118, ES2143536, ES2145705, 284165, 285371			

Field duplicate and Triplicate RPDs	Water Field duplicate RPDs were reported within the DQIs, with the exception of a number of PFAS analytes for water sample duplicate pairs exceeding the DQI with RPDs ranging between 31% and 113%. The Ionic Balance RPD for SW009/QC214 was 291% (refer to **Table D1**). Sediment Field duplicate RPDs were reported within the DQIs, with the exception of a number of PFAS analytes for sediment sample duplicate pairs exceeding the DQI with RPDs ranging between 37% and 133% (refer to **Table D2**). The RPD exceedances were largely attributed to the low concentrations of PFAS compounds reported in the primary and duplicate samples which were noted generally to be within the same order of magnitude for each duplicate pair. Given that the primary and duplicate samples were all within the same concentrations range for the applicable guideline criteria (where available), AECOM does not consider that these RPD exceedances impact upon the reliability of the data. Water and Sediment Duplicate RPD results are presented in Tables **D1** and **D2** (respectively) in **Appendix D**.
Rinsate Results	Seven rinsate blanks were collected during this sampling event, in accordance with the SAQP. All analytical results were recorded to be below the laboratory limit of reporting and are presented in **Table D3** in **Appendix D**.

Overall Assessment

Data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

Tabe D1 - Water Relative Percent Difference

AECOM

					PFAS Full Suite																										
					10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorododecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS	Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					**0.02**	**0.01**	**0.01**	**0.02**	**0.05**	**0.02**	**0.05**	**0.05**	**0.02**	**0.05**	**0.01**	**0.02**	**0.02**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.02**	**0.01**	**0.02**	**0.05**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
Date	**Field ID**	**Matrix Type**	**Sample Type**	**Lab Report Number**																												
22/11/2021	0902_MW109_211122	Water	Normal	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.50**	<0.1	<0.02	<0.02	<0.02	**0.19**	**0.11**	**0.69**	<0.02	<0.02	**0.41**	**0.12**	<0.05	<0.02	<0.02	**8.59**	**6.37**	**3.50**	**0.20**	**2.87**
	0902_QC100_211122	Water	Field_D	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.49**	<0.1	<0.02	<0.02	<0.02	**0.18**	**0.10**	**0.68**	<0.02	<0.02	**0.39**	**0.12**	<0.05	<0.02	<0.02	**8.12**	**5.97**	**3.21**	**0.19**	**2.76**
RPD					0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	5	10	1	0	0	5	0	0	0	0	6	6	9	5	4
22/11/2021	0902_MW023_211122	Water	Normal	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.02**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.19**	**0.17**	**0.11**	<0.01	**0.06**
	0902_QC200_211122	Water	Interlab_D	284165	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	**0.21**	**0.20**	**0.13**	<0.01	**0.07**
RPD					0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	16	17	0	15
22/11/2021	0902_MW065_211122	Water	Normal	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	**0.03**	<0.02	<0.05	<0.02	<0.02	**0.26**	**0.19**	0.01	<0.01	**0.18**
	0902_QC101_211122	Water	Field_D	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.05**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	**0.04**	<0.02	<0.05	<0.02	<0.02	**0.35**	**0.28**	0.01	<0.01	**0.25**
RPD					0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	29	0	0	0	0	30	**31**	0	0	**33**
22/11/2021	0902_MW046_211122	Water	Normal	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.03**	**0.03**	<0.01	<0.01	**0.03**
	0902_QC201_211122	Water	Interlab_D	284165	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.01	<0.02	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	**0.04**	**0.03**	<0.01	<0.01	**0.03**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0	0	0	0
23/11/2021	0902_MW008_211123	Water	Normal	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.20**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	**0.12**	0.02	<0.05	<0.02	<0.02	**1.05**	**0.61**	**0.05**	<0.01	**0.55**
	0902_QC102_211123	Water	Field_D	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.22**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	**0.12**	<0.02	<0.02	**0.15**	0.02	<0.05	<0.02	<0.02	**1.34**	**0.83**	**0.06**	<0.01	**0.77**
RPD					0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	18	0	0	22	0	0	0	0	24	**31**	18	0	**32**
23/11/2021	0902_MW041_211123	Water	Normal	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.13**	**0.13**	**0.05**	<0.01	**0.08**
	0902_QC202_211123	Water	Interlab_D	284165	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	**0.15**	**0.14**	**0.06**	<0.01	**0.09**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	7	18	0	12
23/11/2021	0902_MW040_211123	Water	Normal	ES2142389	<0.05	<0.05	**0.14**	**0.06**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**6.39**	**1.3**	**0.43**	0.02	<0.02	**2.50**	**1.35**	**12.7**	**0.07**	**0.18**	**5.81**	**2.60**	<0.05	<0.02	<0.02	**152**	**116**	**74.7**	**2.54**	**41.6**
	0902_QC103_211123	Water	Field_D	ES2142389	<0.05	<0.05	**0.20**	**0.07**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**10.1**	**2.0**	**0.88**	**0.03**	0.02	**5.00**	**1.97**	**19.2**	**0.09**	**0.31**	**11.0**	**4.20**	<0.05	<0.02	**0.03**	**258**	**199**	**129**	**3.98**	**70.4**
RPD					0	0	**35**	**33**	0	0	0	0	0	0	**45**	**42**	**45**	**40**	0	**67**	**37**	**41**	25	**53**	**65**	**47**	0	0	**40**	**52**	**53**	**53**	**44**	**51**
23/11/2021	0902_MW050_211123	Water	Normal	ES2143118	<0.05	<0.05	**0.10**	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.18**	<0.1	<0.02	<0.02	<0.02	**0.10**	**0.05**	**0.39**	<0.02	**0.03**	**0.14**	**0.11**	<0.05	<0.02	<0.02	**7.49**	**6.26**	**4.96**	**0.13**	**1.30**
	0902_QC203_211123	Water	Interlab_D	284165	<0.02	<0.01	**0.09**	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.14**	**0.08**	<0.02	<0.02	<0.02	**0.11**	**0.05**	**0.29**	<0.01	<0.1	**0.13**	**0.1**	<0.5	<0.1	<0.02	**6.4**	**5.3**	**4.1**	**0.12**	**1.2**
RPD					0	0	11	0	0	0	0	0	0	0	**25**	0	0	0	0	10	0	29	0	0	7	10	0	0	0	16	17	19	8	8
23/11/2021	0902_MW107I_211123	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.28**	**0.2**	<0.02	<0.02	<0.02	**0.38**	**0.41**	**3.06**	<0.02	<0.02	**0.94**	**0.48**	<0.05	<0.02	<0.02	**17.3**	**9.72**	**2.67**	**0.77**	**7.05**
	0902_QC104_211123	Water	Field_D	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.48**	**0.9**	<0.02	<0.02	<0.02	**1.15**	**1.19**	**9.18**	<0.02	<0.02	**3.40**	**1.42**	<0.05	<0.02	<0.02	**49.7**	**26.7**	**7.88**	**2.32**	**18.8**
RPD					0	0	0	0	0	0	0	0	0	0	**92**	**127**	0	0	0	**101**	**98**	**100**	0	0	**113**	**99**	0	0	0	**97**	**93**	**99**	**100**	**91**
23/11/2021	0902_MW107D_211123	Water	Normal	ES2143118	<0.05	<0.05	**0.12**	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.29**	**0.8**	<0.02	<0.02	<0.02	**0.97**	**1.11**	**8.38**	<0.02	<0.02	**2.70**	**1.45**	<0.05	<0.02	<0.02	**42.7**	**21.7**	**7.51**	**2.07**	**14.2**
	0902_QC204_211123	Water	Interlab_D	284165	<0.02	<0.01	**0.1**	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**2.7**	**0.97**	<0.02	<0.02	<0.02	**0.84**	**1.1**	**7.0**	<0.01	<0.1	**2.7**	**1.4**	<0.5	<0.1	<0.02	**41**	**23**	**7.6**	**1.9**	**15**
RPD					0	0	18	0	0	0	0	0	0	0	20	19	0	0	0	14	1	18	0	0	3	4	0	0	0	4	6	1	9	5
23/11/2021	0902_MW108_211123	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.30**	<0.1	<0.02	<0.02	<0.02	**0.05**	**0.08**	**0.34**	**0.03**	<0.02	**0.12**	**0.12**	<0.05	<0.02	<0.02	**2.67**	**1.50**	**0.62**	**0.13**	**0.88**
	0902_QC105_211123	Water	Field_D	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.33**	**0.1**	<0.02	<0.02	<0.02	**0.05**	**0.09**	**0.42**	**0.03**	<0.02	**0.13**	**0.14**	<0.05	<0.02	<0.02	**3.20**	**1.75**	**0.80**	**0.16**	**0.95**
RPD					0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	12	21	0	0	8	15	0	0	0	18	15	25	21	8
23/11/2021	0902_MW030_211123	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.28**	<0.1	<0.02	<0.02	<0.02	**0.05**	**0.05**	**0.30**	<0.02	<0.02	**0.21**	**0.05**	<0.05	<0.02	<0.02	**3.57**	**2.51**	**0.94**	**0.12**	**1.57**
	0902_QC205_211123	Water	Interlab_D	284165	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.20**	**0.04**	<0.02	<0.02	<0.02	**0.04**	**0.04**	**0.20**	<0.01	<0.1	**0.20**	**0.04**	<0.5	<0.1	<0.02	**2.8**	**2.0**	**0.69**	**0.09**	**1.3**
RPD					0	0	0	0	0	0	0	0	0	0	**33**	0	0	0	0	22	22	**40**	0	0	5	22	0	0	0	24	23	**31**	29	19
24/11/2021	0902_MW056_211124	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	0902_QC106_211124	Water	Field_D	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24/11/2021	0902_MW021_211124	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.06**	<0.1	<0.02	<0.02	<0.02	**0.05**	**0.09**	**0.41**	<0.02	<0.02	**0.07**	**0.12**	<0.05	<0.02	<0.02	**5.34**	**4.33**	**2.76**	**0.21**	**1.57**
	0902_QC206_211124	Water	Interlab_D	284165	<0.02	<0.01	**0.08**	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.05**	**0.08**	<0.02	<0.02	<0.02	**0.06**	**0.07**	**0.25**	**0.02**	<0.1	**0.07**	**0.09**	<0.5	<0.1	<0.02	**4.2**	**3.3**	**2.0**	**0.18**	**1.3**
RPD					0	0	0	0	0	0	0	0	0	0	18	25	0	0	0	18	25	**48**	0	0	0	29	0	0	0	24	27	**32**	15	19
24/11/2021	0902_MW106_211124	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.34**	<0.1	<0.02	<0.02	<0.02	**0.11**	**0.04**	**0.44**	<0.02	<0.02	**0.20**	**0.07**	<0.05	<0.02	<0.02	**4.14**	**2.86**	**0.97**	**0.08**	**1.89**
	0902_QC107_211124	Water	Field_D	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.23**	<0.1	<0.02	<0.02	<0.02	**0.06**	**0.03**	**0.32**	<0.02	<0.02	**0.18**	**0.06**	<0.05	<0.02	<0.02	**2.75**	**1.82**	**0.53**	**0.05**	**1.29**
RPD					0	0	0	0	0	0	0	0	0	0	**39**	0	0	0	0	**59**	29	**32**	0	0	11	15	0	0	0	**40**	**44**	**59**	**46**	**38**
24/11/2021	0902_MW080_211124	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.08**	<0.1	<0.02	<0.02	<0.02	**0.28**	**0.10**	**1.01**	<0.02	<0.02	**0.62**	**0.18**	<0.05	<0.02	<0.02	**10.5**	**7.30**	**2.02**	**0.18**	**4.39**
	0902_QC207_211124	Water	Interlab_D	284165	<0.02	<0.01	0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.64**	**0.08**	<0.02	<0.02	<0.02	**0.27**	**0.11**	**0.79**	<0.01	<0.1	**0.85**	**0.2**	<0.5	<0.1	<0.02	**9.4**	**6.5**	**2.3**	**0.17**	**4.2**
RPD					0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	4	10	24	0	0	5	22	0	0	0	11	12	24	6	4
25/11/2021	0902_SW023_211125	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.02**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	**0.05**	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.51**	**0.43**	**0.30**	0.01	**0.13**
	0902_QC108_211125	Water	Field_D	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.02**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.48**	**0.41**	**0.29**	0.01	**0.12**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	6	5	3	0	8
26/11/2021	0902_SW001_211126	Water	Normal	ES2143118	<0.05	<0.05	<0.05	**0.10**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.27**	**0.3**	**0.04**	**0.09**	0.02	**0.05**	**0.13**	**0.62**	**0.10**	<0.02	**0.12**	**0.43**	<0.05	<0.02	**0.04**	**7.54**	**5.00**	**4.10**	**0.23**	**0.90**
	0902_QC208_211126	Water	Interlab_D	284165	<0.02	<0.01	**0.04**	**0.1**	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.21**	**0.46**	<0.02	**0.09**	<0.05	**0.06**	**0.14**	**0.48**	**0.11**	<0.1	**0.12**	**0.42**	<0.5	<0.1	**0.03**	**7.5**	**5.0**	**4.1**	**0.23**	**0.88**
RPD					0	0	0	0	0	0	0	0	0	0	25	**42**	**67**	0	0	18	7	25	10	0	0	2	0	0	29	1	0	0	0	2
29/11/2021	0902_SW003_211129	Water	Normal	ES2143536	<0.05	<0.05	**0.06**	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.63**	**0.4**	**0.03**	**0.04**	<0.02	**0.89**	**0.46**	**3.18**	**0.10**	<0.02	**1.71**	**0.80**	<0.05	<0.02	0.02	**57.2**	**47.1**	**33.6**	**0.84**	**13.5**
	0902_QC211_211129	Water	Interlab_D	284165	<0.02	<0.01	**0.07**	**0.04**	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**1.6**	**0.67**	<0.02	**0.04**	<0.05	**0.83**	**0.58**	**3.6**	**0.12**	<0.1	**1.5**	**0.93**	<0.5	<0.1	<0.02	**52**	**41**	**29**	**1.0**	**12**
RPD					0	0	15	0	0	0	0	0	0	0	2	**50**	**40**	0	0	7	25	12	18	0	13	15	0	0	0	10	14	15	17	12
29/11/2021	0902_MW016_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	0902_QC110_211129	Water	Field_D	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29/11/2021	0902_MW002_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	0902_QC212_211129	Water	Interlab_D	284165	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29/11/2021	0902_MW001_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.03**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	**0.02**	<0.02	<0.05	<0.02	<0.02	**0.17**	**0.12**	<0.01	<0.01	**0.12**
	0902_QC112_211129	Water	Field_D	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	**0.03**	<0.02	<0.05	<0.02	<0.02	**0.21**	**0.14**	<0.01	<0.01	**0.14**
RPD					0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	0	0	**40**	0	0	0	0	21	15	0	0	15
29/11/2021	0902_MW114_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.03**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	**0.02**	<0.02	<0.05	<0.02	<0.02	**0.19**	**0.14**	<0.01	<0.01	**0.14**
	0902_QC213_211129	Water	Interlab_D	284165	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.03**	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	0.01	<0.01	<0.1	**0.02**	<0.02	<0.5	<0.1	<0.02	**0.20**	**0.14**	<0.01	<0.01	**0.14**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
29/11/2021	0902_SW008_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.13**	**0.13**	**0.08**	<0.01	**0.05**
	0902_QC113_211129	Water	Field_D	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.10**	**0.16**	**0.11**	<0.01	**0.06**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**32**	21	**32**	0	0
29/11/2021	0902_SW009_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.23**	<0.1	<0.02	<0.02	<0.02	**0.11**	**0.07**	**0.46**	<0.02	<0.02	**0.16**	**0.10**	<0.05	<0.02	<0.02	**9.25**	**7.98**	**6.19**	**0.14**	**1.79**
	0902_QC214_211129	Water	Interlab_D	284165	<0.02	<0.01	**0.02**	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.16**	**0.2**	<0.02	<0.02	<0.02	**0.13**	**0.05**	**0.32**	0.01	<0.1	**0.18**	**0.09**	<0.5	<0.1	<0.02	**15**	**14**	**12**	**0.15**	**1.7**
RPD					0	0	0	0	0	0	0	0	0	0	**38**	**67**	0	0	0	17	**33**	**38**	0	0	12	11	0	0	0	**47**	**55**	**64**	7	5
29/11/2021	0902_SW013_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	**0.06**	<0.02	<0.02	**0.02**	<0.02	<0.05	<0.02	<0.02	**0.52**	**0.39**	**0.20**	0.01	**0.19**
	0902_QC115_211129	Water	Field_D	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.03**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	**0.07**	<0.02	<0.02	**0.02**	0.02	<0.05	<0.02	<0.02	**0.56**	**0.41**	**0.19**	0.01	**0.22**
RPD					0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	15	0	0	0	0	0	0	0	7	5	5	0	15
14/12/2021	0902_MW120_211214	WATER	Normal	ES2145705	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.02**	**0.02**	**0.02**

Tabe D1 - Water Relative Percent Difference

AECOM

					NA		Organic	Inorganics														Metals					
					Filtered Total Phosphorus as P	Sum of PFAS (WA DER List)	Sum of US EPA PFAS (PFOS + PFOA)*	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Nitrite + Nitrate as N	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	Bromine (filtered)	Cations Total	Chloride	Ionic Balance	Nitrate (as N)	Nitrite (as N)	Sodium (filtered)	Sulfate as SO4 - Turbidimetric (filtered)	Aluminium (filtered)	Calcium (filtered)	Iron (filtered)	Magnesium (filtered)	Manganese (filtered)	Potassium (filtered)
					mg/L	µg/L	µg/L	mg/L	mg/L	mg/L	µg/L	mg/L	µg/L	meq/L	µg/L	meq/L	mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR					0.01	0.01	0.01	1	1	0.01	1,000	1	5	0.01	10	0.01	1	0.01	0.005	0.005	0.5	1	0.01	0.5	0.01	0.5	0.001	0.5
Date	Field ID	Matrix Type	Sample Type	Lab Report Number																								
22/11/2021	0902_MW109_211122	Water	Normal	ES2142389	-	**7.99**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC100_211122	Water	Field_D	ES2142389	-	**7.55**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22/11/2021	0902_MW023_211122	Water	Normal	ES2142389	-	**0.19**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC200_211122	Water	Interlab_D	284165	-	-	**0.13**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22/11/2021	0902_MW065_211122	Water	Normal	ES2142389	-	**0.23**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC101_211122	Water	Field_D	ES2142389	-	**0.31**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22/11/2021	0902_MW046_211122	Water	Normal	ES2142389	-	**0.03**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC201_211122	Water	Interlab_D	284165	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW008_211123	Water	Normal	ES2142389	-	**0.93**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC102_211123	Water	Field_D	ES2142389	-	**1.19**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW041_211123	Water	Normal	ES2142389	-	**0.13**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC202_211123	Water	Interlab_D	284165	-	-	**0.06**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW040_211123	Water	Normal	ES2142389	-	**143**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC103_211123	Water	Field_D	ES2142389	-	**241**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	**51**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW050_211123	Water	Normal	ES2143118	-	**7.22**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC203_211123	Water	Interlab_D	284165	-	-	**4.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW107I_211123	Water	Normal	ES2143118	-	**15.9**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC104_211123	Water	Field_D	ES2143118	-	**45.2**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	**96**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW107D_211123	Water	Normal	ES2143118	-	**38.9**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC204_211123	Water	Interlab_D	284165	-	-	**0.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW108_211123	Water	Normal	ES2143118	-	**2.47**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC105_211123	Water	Field_D	ES2143118	-	**2.99**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW030_211123	Water	Normal	ES2143118	-	**3.31**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC205_211123	Water	Interlab_D	284165	-	-	**0.78**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/11/2021	0902_MW056_211124	Water	Normal	ES2143118	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC106_211124	Water	Field_D	ES2143118	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/11/2021	0902_MW021_211124	Water	Normal	ES2143118	-	**5.22**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC206_211124	Water	Interlab_D	284165	-	-	**2.2**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/11/2021	0902_MW106_211124	Water	Normal	ES2143118	-	**3.83**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC107_211124	Water	Field_D	ES2143118	-	**2.51**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	**42**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/11/2021	0902_MW080_211124	Water	Normal	ES2143118	-	**9.61**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC207_211124	Water	Interlab_D	284165	-	-	**2.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/11/2021	0902_SW023_211125	Water	Normal	ES2143118	**0.18**	**0.51**	-	**50**	<1	**0.19**	<1,000	**50**	**110**	**5.82**	**300**	**5.58**	**149**	**0.34**	**0.17**	**0.02**	**78**	**20**	**0.28**	**15**	**1.22**	**15**	**0.246**	**8**
	0902_QC108_211125	Water	Field_D	ES2143118	**0.19**	**0.48**	-	**51**	<1	**0.19**	<1,000	**51**	**110**	**5.81**	**300**	**5.54**	**148**	**0.66**	**0.17**	**0.02**	**77**	**20**	**0.22**	**15**	**1.18**	**15**	**0.246**	**8**
RPD					5	6	-	2	0	0	0	2	0	0	0	1	1	**64**	0	0	1	0	17	0	3	0	0	0
26/11/2021	0902_SW001_211126	Water	Normal	ES2143118	-	**7.08**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC208_211126	Water	Interlab_D	284165	-	-	**4.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/11/2021	0902_SW003_211129	Water	Normal	ES2143536	**0.26**	**54.5**	-	**50**	<1	**0.09**	<1,000	**50**	**80**	**1.61**	<100	**1.55**	**13**	-	**0.09**	<0.01	**12**	**7**	**0.25**	**12**	**0.58**	**4**	**0.040**	**4**
	0902_QC211_211129	Water	Interlab_D	284165	-	-	**30**	**55**	<5	-	<5,000	**55**	**52**	-	**61**	-	**15**	-7.0	**0.061**	0.005	**12**	-	**0.27**	**12**	**0.63**	**3**	**0.041**	**4**
RPD					-	-	-	10	0	-	0	10	14	-	0	-	14	-	**38**	0	0	-	8	0	8	29	2	0
29/11/2021	0902_MW016_211129	Water	Normal	ES2143536	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC110_211129	Water	Field_D	ES2143536	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/11/2021	0902_MW002_211129	Water	Normal	ES2143536	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC212_211129	Water	Interlab_D	284165	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/11/2021	0902_MW001_211129	Water	Normal	ES2143536	**0.17**	**0.15**	-	**277**	<1	**0.08**	<1,000	**277**	**40**	**13.9**	**800**	**12.9**	**257**	**3.82**	**0.08**	<0.01	**125**	**54**	<0.01	**75**	<0.05	**45**	**0.066**	<1
	0902_QC112_211129	Water	Field_D	ES2143536	-	**0.18**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/11/2021	0902_MW114_211129	Water	Normal	ES2143536	-	**0.17**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC213_211129	Water	Interlab_D	284165	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/11/2021	0902_SW008_211129	Water	Normal	ES2143536	**0.54**	**0.13**	-	**54**	<1	**0.18**	<1,000	**54**	**120**	**2.86**	**100**	**2.63**	**52**	-	**0.18**	<0.01	**30**	**15**	**0.72**	**11**	**1.04**	**7**	**0.157**	**8**
	0902_QC113_211129	Water	Field_D	ES2143536	**0.61**	**0.18**	-	**49**	<1	**0.18**	<1,000	**49**	**120**	**2.90**	**100**	**2.63**	**54**	-	**0.18**	<0.01	**30**	**19**	**0.69**	**11**	**1.21**	**7**	**0.160**	**8**
RPD					12	**32**	-	10	0	0	0	10	0	1	0	0	4	-	0	0	0	24	4	0	15	0	2	0
29/11/2021	0902_SW009_211129	Water	Normal	ES2143536	**0.18**	**8.98**	-	**65**	<1	**0.08**	<1,000	**65**	**90**	**3.36**	**200**	**3.21**	**65**	**2.23**	**0.08**	<0.01	**38**	**11**	**0.11**	**14**	**1.11**	**8**	**0.353**	**8**
	0902_QC214_211129	Water	Interlab_D	284165	-	-	**12**	**66**	<5	-	<5,000	**66**	**86**	-	**300**	-	**74**	-12	**0.059**	0.005	**32**	-	**0.12**	**14**	**1.1**	**7.5**	**0.37**	**7.8**
RPD					-		-	2	0	-	0	2	7	-	**40**	-	13	**291**	30	0	17	-	9	0	1	6	5	3
29/11/2021	0902_SW013_211129	Water	Normal	ES2143536	-	**0.50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC115_211129	Water	Field_D	ES2143536	-	**0.54**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/12/2021	0902_MW120_211214	WATER	Normal	ES2145705	-	**0.02**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC116_211214	WATER	Field_D	ES2145705	-	**0.02**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/12/2021	0902_MW121_211214	WATER	Normal	ES2145705	-	**0.02**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC216_211214	WATER	Interlab_D	285371	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*RPDs have only been considered where a concentration is greater than 1 times the LOR.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each LOR multiplier range are: 1
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in

Table D2 - Sediment Relative Percent Difference

AECOM

					PFAS Full Suite																														NA	Inorganics
					10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS	Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFAS (WA DER List)	Moisture Content_
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%
LOR					**0.0002**	**0.0001**	**0.0001**	**0.0002**	**0.0005**	**0.0002**	**0.0005**	**0.0005**	**0.0002**	**0.0005**	**0.0001**	**0.0002**	**0.0002**	**0.0002**	**0.0002**	**0.0001**	**0.0001**	**0.0001**	**0.0002**	**0.0001**	**0.0002**	**0.0005**	**0.0002**	**0.0002**	**0.0001**	**0.0001**	**0.0001**	**0.0001**	**0.0001**	**0.0002**	**0.1**
Date	**Field ID**	**Matrix Type**	**Sample Type**	**Lab Report Number**																																
25/11/2021	0902_SD023_211125	Soil	Normal	ES2143118	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	**0.0098**	**0.0098**	**0.0094**	<0.0002	**0.0004**	**0.0098**	**39.3**
	0902_QC109_211125	Soil	Field_D	ES2143118	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	**0.0090**	**0.0090**	**0.0087**	<0.0002	**0.0003**	**0.0090**	**32.1**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	8	0	29	9	20
26/11/2021	0902_SD001_211126	Soil	Normal	ES2143118	**0.718**	<0.0005	**0.132**	**5.35**	<0.0005	**0.0020**	<0.0005	<0.0005	**0.0024**	<0.0005	**0.0054**	<0.001	**0.322**	**6.81**	**8.99**	**0.0282**	**0.0339**	**0.0366**	**0.708**	**0.183**	**0.0075**	**0.0105**	**1.01**	**1.52**	**10.7**	**51.1**	**14.4**	**14.3**	**0.104**	**0.0885**	**20.1**	**53.0**
	0902_QC209_211126	Soil	Interlab_D	284165	**1.1**	<0.0001	**0.12**	**8.5**	<0.001	**0.0024**	<0.005	**0.002**	**0.0027**	<0.001	**0.0052**	**0.0042**	**0.28**	**5.6**	**11**	**0.028**	**0.037**	**0.029**	**0.66**	**0.37**	**0.0068**	**0.011**	**1.2**	**2.5**	**8.8**	**52**	**11**	**11**	**0.11**	**0.093**	-	**62**
RPD					**42**	0	10	**45**	0	18	0	**120**	12	0	4	**123**	14	20	20	1	9	23	7	**68**	10	5	17	**49**	19	2	27	26	6	5	-	16
29/11/2021	0902_SD003_211129	Soil	Normal	ES2143536	**0.0009**	<0.0005	**0.0013**	**0.0030**	<0.0005	**0.0003**	<0.0005	<0.0005	<0.0002	<0.0005	**0.0067**	**0.003**	**0.0534**	**0.0247**	**0.0490**	**0.0092**	**0.0039**	**0.0136**	**0.0076**	**0.0232**	**0.0073**	**0.0076**	<0.0005	**0.0110**	**0.0344**	**1.66**	**1.40**	**1.29**	**0.0094**	**0.106**	**1.44**	**66.7**
	0902_QC210_211129	Soil	Interlab_D	284165	**0.002**	<0.0001	**0.0014**	**0.01**	<0.001	0.0002	<0.005	<0.001	<0.0002	<0.001	**0.0038**	**0.002**	**0.015**	**0.025**	**0.051**	**0.011**	**0.0022**	**0.0073**	**0.0068**	**0.024**	**0.0046**	**0.0031**	**0.005**	**0.03**	**0.029**	**1.4**	**1.1**	**1.1**	**0.0054**	**0.07**	-	**63**
RPD					**76**	0	7	**108**	0	**40**	0	0	0	0	**55**	**40**	**112**	1	4	18	**56**	**60**	11	3	**45**	**84**	164	**93**	17	17	24	16	**54**	**41**	-	6
29/11/2021	0902_SD007_211129	Soil	Normal	ES2143536	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	**0.0129**	**0.0129**	**0.0121**	<0.0002	**0.0008**	**0.0129**	**45.1**
	0902_QC111_211129	Soil	Field_D	ES2143536	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	**0.0115**	**0.0112**	**0.0100**	<0.0002	**0.0012**	**0.0115**	**50.5**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**40**	0	0	0	0	0	0	0	11	14	19	0	**40**	11	11
29/11/2021	0902_SD008_211129	Soil	Normal	ES2143536	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	**0.0009**	<0.0002	**0.0010**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	**0.0086**	**0.0067**	**0.0056**	<0.0002	**0.0011**	**0.0067**	**56.5**
	0902_QC114_211129	Soil	Field_D	ES2143536	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	**0.0046**	**0.0046**	**0.0036**	<0.0002	**0.0010**	**0.0046**	**56.3**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	**127**	0	**133**	0	0	0	0	0	0	0	0	0	**61**	**37**	**43**	0	10	**37**	0
29/11/2021	0902_SD009_211129	Soil	Normal	ES2143536	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0003**	<0.001	**0.0010**	<0.0002	**0.0005**	**0.0003**	<0.0002	**0.0006**	<0.0002	**0.0003**	**0.0003**	<0.0002	<0.0005	<0.0002	<0.0002	**0.0561**	**0.0525**	**0.0493**	**0.0003**	**0.0032**	**0.0537**	**54.4**
	0902_QC215_211129	Soil	Interlab_D	284165	**0.0003**	<0.0001	0.0001	**0.0004**	<0.001	<0.0002	<0.005	<0.001	<0.0002	<0.001	**0.0002**	<0.0002	**0.0006**	<0.0005	**0.001**	**0.0005**	**0.0002**	**0.0004**	**0.0002**	<0.001	**0.0002**	**0.0004**	<0.005	**0.001**	**0.0006**	**0.057**	**0.05**	**0.047**	**0.0003**	**0.0031**	-	**50**
RPD					0	0	0	0	0	0	0	0	0	0	**40**	0	**50**	0	**67**	**50**	0	**40**	0	0	**40**	**67**	0	**133**	**100**	2	5	5	0	3	-	8

***RPDs have only been considered where a concentration is greater than 1 times the LOR.**
****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each LOR multiplier range are: 30 (1 - 10 x LOR); 30 (10 - 30 x LOR); 30 (> 30 x LOR))**
*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Table D3 - Rinsate Results

AECOM

				PFAS Full Suite																																				Metals			
				10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS	Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFAS (WA DER List)	Bromine (Filtered)	Aluminium (Filtered)	Iron (Filtered)	Manganese (Filtered)
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L
LOR				0.05	0.05	0.05	0.05	0.05	0.02	0.05	0.05	0.02	0.05	0.02	0.1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	100	0.01	0.05	0.001
Field ID	**Sampled Date**	**Sample Type**	**Lab Report Number**																																								
0902_QC300_211122	22/11/2021	Rinsate	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<100	<0.01	<0.05	<0.001
0902_QC301_211123	23/11/2021	Rinsate	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<100	<0.01	<0.05	<0.001
0902_QC302_211124	24/11/2021	Rinsate	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<100	<0.01	<0.05	<0.001
0902_QC303_211125	25/11/2021	Rinsate	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<100	<0.01	<0.05	<0.001
0902_QC304_211126	26/11/2021	Rinsate	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<100	<0.01	<0.05	<0.001
0902_QC305_211129	29/11/2021	Rinsate	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<100	<0.01	<0.05	<0.001
0902_QC306_211214	14/12/2021	Rinsate	ES2145705	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-

Tabe D1 - Water Relative Percent Difference

AECOM

					PFAS Full Suite																										
					10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorododecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS	Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					**0.02**	**0.01**	**0.01**	**0.02**	**0.05**	**0.02**	**0.05**	**0.05**	**0.02**	**0.05**	**0.01**	**0.02**	**0.02**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.02**	**0.01**	**0.02**	**0.05**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
Date	**Field ID**	**Matrix Type**	**Sample Type**	**Lab Report Number**																												
22/11/2021	0902_MW109_211122	Water	Normal	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.50**	<0.1	<0.02	<0.02	<0.02	**0.19**	**0.11**	**0.69**	<0.02	<0.02	**0.41**	**0.12**	<0.05	<0.02	<0.02	**8.59**	**6.37**	**3.50**	**0.20**	**2.87**
	0902_QC100_211122	Water	Field_D	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.49**	<0.1	<0.02	<0.02	<0.02	**0.18**	**0.10**	**0.68**	<0.02	<0.02	**0.39**	**0.12**	<0.05	<0.02	<0.02	**8.12**	**5.97**	**3.21**	**0.19**	**2.76**
RPD					0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	5	10	1	0	0	5	0	0	0	0	6	6	9	5	4
22/11/2021	0902_MW023_211122	Water	Normal	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.02**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.19**	**0.17**	**0.11**	<0.01	**0.06**
	0902_QC200_211122	Water	Interlab_D	284165	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.01	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	**0.21**	**0.20**	**0.13**	<0.01	**0.07**
RPD					0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	16	17	0	15
22/11/2021	0902_MW065_211122	Water	Normal	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	**0.03**	<0.02	<0.05	<0.02	<0.02	**0.26**	**0.19**	0.01	<0.01	**0.18**
	0902_QC101_211122	Water	Field_D	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.05**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	**0.04**	<0.02	<0.05	<0.02	<0.02	**0.35**	**0.28**	0.01	<0.01	**0.25**
RPD					0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	29	0	0	0	0	30	**31**	0	0	**33**
22/11/2021	0902_MW046_211122	Water	Normal	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.03**	**0.03**	<0.01	<0.01	**0.03**
	0902_QC201_211122	Water	Interlab_D	284165	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.01	<0.02	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	**0.04**	**0.03**	<0.01	<0.01	**0.03**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0	0	0	0
23/11/2021	0902_MW008_211123	Water	Normal	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.20**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	**0.12**	0.02	<0.05	<0.02	<0.02	**1.05**	**0.61**	**0.05**	<0.01	**0.55**
	0902_QC102_211123	Water	Field_D	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.22**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	**0.12**	<0.02	<0.02	**0.15**	0.02	<0.05	<0.02	<0.02	**1.34**	**0.83**	**0.06**	<0.01	**0.77**
RPD					0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	18	0	0	22	0	0	0	0	24	**31**	18	0	**32**
23/11/2021	0902_MW041_211123	Water	Normal	ES2142389	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.13**	**0.13**	**0.05**	<0.01	**0.08**
	0902_QC202_211123	Water	Interlab_D	284165	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	**0.15**	**0.14**	**0.06**	<0.01	**0.09**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	7	18	0	12
23/11/2021	0902_MW040_211123	Water	Normal	ES2142389	<0.05	<0.05	**0.14**	**0.06**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**6.39**	**1.3**	**0.43**	0.02	<0.02	**2.50**	**1.35**	**12.7**	**0.07**	**0.18**	**5.81**	**2.60**	<0.05	<0.02	<0.02	**152**	**116**	**74.7**	**2.54**	**41.6**
	0902_QC103_211123	Water	Field_D	ES2142389	<0.05	<0.05	**0.20**	**0.07**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**10.1**	**2.0**	**0.88**	**0.03**	0.02	**5.00**	**1.97**	**19.2**	**0.09**	**0.31**	**11.0**	**4.20**	<0.05	<0.02	**0.03**	**258**	**199**	**129**	**3.98**	**70.4**
RPD					0	0	**35**	**33**	0	0	0	0	0	0	**45**	**42**	**45**	**40**	0	**67**	**37**	**41**	25	**53**	**65**	**47**	0	0	**40**	**52**	**53**	**53**	**44**	**51**
23/11/2021	0902_MW050_211123	Water	Normal	ES2143118	<0.05	<0.05	**0.10**	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.18**	<0.1	<0.02	<0.02	<0.02	**0.10**	**0.05**	**0.39**	<0.02	**0.03**	**0.14**	**0.11**	<0.05	<0.02	<0.02	**7.49**	**6.26**	**4.96**	**0.13**	**1.30**
	0902_QC203_211123	Water	Interlab_D	284165	<0.02	<0.01	**0.09**	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.14**	**0.08**	<0.02	<0.02	<0.02	**0.11**	**0.05**	**0.29**	<0.01	<0.1	**0.13**	**0.1**	<0.5	<0.1	<0.02	**6.4**	**5.3**	**4.1**	**0.12**	**1.2**
RPD					0	0	11	0	0	0	0	0	0	0	**25**	0	0	0	0	10	0	29	0	0	7	10	0	0	0	16	17	19	8	8
23/11/2021	0902_MW107I_211123	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.28**	**0.2**	<0.02	<0.02	<0.02	**0.38**	**0.41**	**3.06**	<0.02	<0.02	**0.94**	**0.48**	<0.05	<0.02	<0.02	**17.3**	**9.72**	**2.67**	**0.77**	**7.05**
	0902_QC104_211123	Water	Field_D	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.48**	**0.9**	<0.02	<0.02	<0.02	**1.15**	**1.19**	**9.18**	<0.02	<0.02	**3.40**	**1.42**	<0.05	<0.02	<0.02	**49.7**	**26.7**	**7.88**	**2.32**	**18.8**
RPD					0	0	0	0	0	0	0	0	0	0	**92**	**127**	0	0	0	**101**	**98**	**100**	0	0	**113**	**99**	0	0	0	**97**	**93**	**99**	**100**	**91**
23/11/2021	0902_MW107D_211123	Water	Normal	ES2143118	<0.05	<0.05	**0.12**	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**3.29**	**0.8**	<0.02	<0.02	<0.02	**0.97**	**1.11**	**8.38**	<0.02	<0.02	**2.70**	**1.45**	<0.05	<0.02	<0.02	**42.7**	**21.7**	**7.51**	**2.07**	**14.2**
	0902_QC204_211123	Water	Interlab_D	284165	<0.02	<0.01	**0.1**	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**2.7**	**0.97**	<0.02	<0.02	<0.02	**0.84**	**1.1**	**7.0**	<0.01	<0.1	**2.7**	**1.4**	<0.5	<0.1	<0.02	**41**	**23**	**7.6**	**1.9**	**15**
RPD					0	0	18	0	0	0	0	0	0	0	20	19	0	0	0	14	1	18	0	0	3	4	0	0	0	4	6	1	9	5
23/11/2021	0902_MW108_211123	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.30**	<0.1	<0.02	<0.02	<0.02	**0.05**	**0.08**	**0.34**	**0.03**	<0.02	**0.12**	**0.12**	<0.05	<0.02	<0.02	**2.67**	**1.50**	**0.62**	**0.13**	**0.88**
	0902_QC105_211123	Water	Field_D	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.33**	**0.1**	<0.02	<0.02	<0.02	**0.05**	**0.09**	**0.42**	**0.03**	<0.02	**0.13**	**0.14**	<0.05	<0.02	<0.02	**3.20**	**1.75**	**0.80**	**0.16**	**0.95**
RPD					0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	12	21	0	0	8	15	0	0	0	18	15	25	21	8
23/11/2021	0902_MW030_211123	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.28**	<0.1	<0.02	<0.02	<0.02	**0.05**	**0.05**	**0.30**	<0.02	<0.02	**0.21**	**0.05**	<0.05	<0.02	<0.02	**3.57**	**2.51**	**0.94**	**0.12**	**1.57**
	0902_QC205_211123	Water	Interlab_D	284165	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.20**	**0.04**	<0.02	<0.02	<0.02	**0.04**	**0.04**	**0.20**	<0.01	<0.1	**0.20**	**0.04**	<0.5	<0.1	<0.02	**2.8**	**2.0**	**0.69**	**0.09**	**1.3**
RPD					0	0	0	0	0	0	0	0	0	0	**33**	0	0	0	0	22	22	**40**	0	0	5	22	0	0	0	24	23	**31**	29	19
24/11/2021	0902_MW056_211124	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	0902_QC106_211124	Water	Field_D	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24/11/2021	0902_MW021_211124	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.06**	<0.1	<0.02	<0.02	<0.02	**0.05**	**0.09**	**0.41**	<0.02	<0.02	**0.07**	**0.12**	<0.05	<0.02	<0.02	**5.34**	**4.33**	**2.76**	**0.21**	**1.57**
	0902_QC206_211124	Water	Interlab_D	284165	<0.02	<0.01	**0.08**	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.05**	**0.08**	<0.02	<0.02	<0.02	**0.06**	**0.07**	**0.25**	**0.02**	<0.1	**0.07**	**0.09**	<0.5	<0.1	<0.02	**4.2**	**3.3**	**2.0**	**0.18**	**1.3**
RPD					0	0	0	0	0	0	0	0	0	0	18	25	0	0	0	18	25	**48**	0	0	0	29	0	0	0	24	27	**32**	15	19
24/11/2021	0902_MW106_211124	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.34**	<0.1	<0.02	<0.02	<0.02	**0.11**	**0.04**	**0.44**	<0.02	<0.02	**0.20**	**0.07**	<0.05	<0.02	<0.02	**4.14**	**2.86**	**0.97**	**0.08**	**1.89**
	0902_QC107_211124	Water	Field_D	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.23**	<0.1	<0.02	<0.02	<0.02	**0.06**	**0.03**	**0.32**	<0.02	<0.02	**0.18**	**0.06**	<0.05	<0.02	<0.02	**2.75**	**1.82**	**0.53**	**0.05**	**1.29**
RPD					0	0	0	0	0	0	0	0	0	0	**39**	0	0	0	0	**59**	29	**32**	0	0	11	15	0	0	0	**40**	**44**	**59**	**46**	**38**
24/11/2021	0902_MW080_211124	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.08**	<0.1	<0.02	<0.02	<0.02	**0.28**	**0.10**	**1.01**	<0.02	<0.02	**0.62**	**0.18**	<0.05	<0.02	<0.02	**10.5**	**7.30**	**2.02**	**0.18**	**4.39**
	0902_QC207_211124	Water	Interlab_D	284165	<0.02	<0.01	0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.64**	**0.08**	<0.02	<0.02	<0.02	**0.27**	**0.11**	**0.79**	<0.01	<0.1	**0.85**	**0.2**	<0.5	<0.1	<0.02	**9.4**	**6.5**	**2.3**	**0.17**	**4.2**
RPD					0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	4	10	24	0	0	5	22	0	0	0	11	12	24	6	4
25/11/2021	0902_SW023_211125	Water	Normal	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.02**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	**0.05**	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.51**	**0.43**	**0.30**	0.01	**0.13**
	0902_QC108_211125	Water	Field_D	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.02**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	**0.04**	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.48**	**0.41**	**0.29**	0.01	**0.12**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	6	5	3	0	8
26/11/2021	0902_SW001_211126	Water	Normal	ES2143118	<0.05	<0.05	<0.05	**0.10**	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.27**	**0.3**	**0.04**	**0.09**	0.02	**0.05**	**0.13**	**0.62**	**0.10**	<0.02	**0.12**	**0.43**	<0.05	<0.02	**0.04**	**7.54**	**5.00**	**4.10**	**0.23**	**0.90**
	0902_QC208_211126	Water	Interlab_D	284165	<0.02	<0.01	**0.04**	**0.1**	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.21**	**0.46**	<0.02	**0.09**	<0.05	**0.06**	**0.14**	**0.48**	**0.11**	<0.1	**0.12**	**0.42**	<0.5	<0.1	**0.03**	**7.5**	**5.0**	**4.1**	**0.23**	**0.88**
RPD					0	0	0	0	0	0	0	0	0	0	25	**42**	**67**	0	0	18	7	25	10	0	0	2	0	0	29	1	0	0	0	2
29/11/2021	0902_SW003_211129	Water	Normal	ES2143536	<0.05	<0.05	**0.06**	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**1.63**	**0.4**	**0.03**	**0.04**	<0.02	**0.89**	**0.46**	**3.18**	**0.10**	<0.02	**1.71**	**0.80**	<0.05	<0.02	0.02	**57.2**	**47.1**	**33.6**	**0.84**	**13.5**
	0902_QC211_211129	Water	Interlab_D	284165	<0.02	<0.01	**0.07**	**0.04**	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**1.6**	**0.67**	<0.02	**0.04**	<0.05	**0.83**	**0.58**	**3.6**	**0.12**	<0.1	**1.5**	**0.93**	<0.5	<0.1	<0.02	**52**	**41**	**29**	**1.0**	**12**
RPD					0	0	15	0	0	0	0	0	0	0	2	**50**	**40**	0	0	7	25	12	18	0	13	15	0	0	0	10	14	15	17	12
29/11/2021	0902_MW016_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	0902_QC110_211129	Water	Field_D	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29/11/2021	0902_MW002_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
	0902_QC212_211129	Water	Interlab_D	284165	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29/11/2021	0902_MW001_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.03**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	**0.02**	<0.02	<0.05	<0.02	<0.02	**0.17**	**0.12**	<0.01	<0.01	**0.12**
	0902_QC112_211129	Water	Field_D	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	**0.03**	<0.02	<0.05	<0.02	<0.02	**0.21**	**0.14**	<0.01	<0.01	**0.14**
RPD					0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	0	0	**40**	0	0	0	0	21	15	0	0	15
29/11/2021	0902_MW114_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.03**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	**0.02**	<0.02	<0.05	<0.02	<0.02	**0.19**	**0.14**	<0.01	<0.01	**0.14**
	0902_QC213_211129	Water	Interlab_D	284165	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.03**	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	0.01	<0.01	<0.1	**0.02**	<0.02	<0.5	<0.1	<0.02	**0.20**	**0.14**	<0.01	<0.01	**0.14**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
29/11/2021	0902_SW008_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.13**	**0.13**	**0.08**	<0.01	**0.05**
	0902_QC113_211129	Water	Field_D	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	**0.02**	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.10**	**0.16**	**0.11**	<0.01	**0.06**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**32**	21	**32**	0	0
29/11/2021	0902_SW009_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.23**	<0.1	<0.02	<0.02	<0.02	**0.11**	**0.07**	**0.46**	<0.02	<0.02	**0.16**	**0.10**	<0.05	<0.02	<0.02	**9.25**	**7.98**	**6.19**	**0.14**	**1.79**
	0902_QC214_211129	Water	Interlab_D	284165	<0.02	<0.01	**0.02**	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	**0.16**	**0.2**	<0.02	<0.02	<0.02	**0.13**	**0.05**	**0.32**	0.01	<0.1	**0.18**	**0.09**	<0.5	<0.1	<0.02	**15**	**14**	**12**	**0.15**	**1.7**
RPD					0	0	0	0	0	0	0	0	0	0	**38**	**67**	0	0	0	17	**33**	**38**	0	0	12	11	0	0	0	**47**	**55**	**64**	7	5
29/11/2021	0902_SW013_211129	Water	Normal	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.04**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	**0.06**	<0.02	<0.02	**0.02**	<0.02	<0.05	<0.02	<0.02	**0.52**	**0.39**	**0.20**	0.01	**0.19**
	0902_QC115_211129	Water	Field_D	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	**0.03**	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	**0.07**	<0.02	<0.02	**0.02**	0.02	<0.05	<0.02	<0.02	**0.56**	**0.41**	**0.19**	0.01	**0.22**
RPD					0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	15	0	0	0	0	0	0	0	7	5	5	0	15
14/12/2021	0902_MW120_211214	WATER	Normal	ES2145705	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	**0.02**	**0.02**	**0.02**

Tabe D1 - Water Relative Percent Difference

AECOM

					NA		Organic	Inorganics														Metals					
					Filtered Total Phosphorus as P	Sum of PFAS (WA DER List)	Sum of US EPA PFAS (PFOS + PFOA)*	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Nitrite + Nitrate as N	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	Bromine (filtered)	Cations Total	Chloride	Ionic Balance	Nitrate (as N)	Nitrite (as N)	Sodium (filtered)	Sulfate as SO4 - Turbidimetric (filtered)	Aluminium (filtered)	Calcium (filtered)	Iron (filtered)	Magnesium (filtered)	Manganese (filtered)	Potassium (filtered)
					mg/L	µg/L	µg/L	mg/L	mg/L	mg/L	µg/L	mg/L	µg/L	meq/L	µg/L	meq/L	mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR					0.01	0.01	0.01	1	1	0.01	1,000	1	5	0.01	10	0.01	1	0.01	0.005	0.005	0.5	1	0.01	0.5	0.01	0.5	0.001	0.5
Date	Field ID	Matrix Type	Sample Type	Lab Report Number																								
22/11/2021	0902_MW109_211122	Water	Normal	ES2142389	-	**7.99**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC100_211122	Water	Field_D	ES2142389	-	**7.55**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22/11/2021	0902_MW023_211122	Water	Normal	ES2142389	-	**0.19**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC200_211122	Water	Interlab_D	284165	-	-	**0.13**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22/11/2021	0902_MW065_211122	Water	Normal	ES2142389	-	**0.23**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC101_211122	Water	Field_D	ES2142389	-	**0.31**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22/11/2021	0902_MW046_211122	Water	Normal	ES2142389	-	**0.03**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC201_211122	Water	Interlab_D	284165	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW008_211123	Water	Normal	ES2142389	-	**0.93**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC102_211123	Water	Field_D	ES2142389	-	**1.19**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW041_211123	Water	Normal	ES2142389	-	**0.13**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC202_211123	Water	Interlab_D	284165	-	-	**0.06**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW040_211123	Water	Normal	ES2142389	-	**143**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC103_211123	Water	Field_D	ES2142389	-	**241**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	**51**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW050_211123	Water	Normal	ES2143118	-	**7.22**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC203_211123	Water	Interlab_D	284165	-	-	**4.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW107I_211123	Water	Normal	ES2143118	-	**15.9**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC104_211123	Water	Field_D	ES2143118	-	**45.2**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	**96**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW107D_211123	Water	Normal	ES2143118	-	**38.9**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC204_211123	Water	Interlab_D	284165	-	-	**0.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW108_211123	Water	Normal	ES2143118	-	**2.47**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC105_211123	Water	Field_D	ES2143118	-	**2.99**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23/11/2021	0902_MW030_211123	Water	Normal	ES2143118	-	**3.31**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC205_211123	Water	Interlab_D	284165	-	-	**0.78**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/11/2021	0902_MW056_211124	Water	Normal	ES2143118	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC106_211124	Water	Field_D	ES2143118	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/11/2021	0902_MW021_211124	Water	Normal	ES2143118	-	**5.22**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC206_211124	Water	Interlab_D	284165	-	-	**2.2**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/11/2021	0902_MW106_211124	Water	Normal	ES2143118	-	**3.83**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC107_211124	Water	Field_D	ES2143118	-	**2.51**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	**42**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/11/2021	0902_MW080_211124	Water	Normal	ES2143118	-	**9.61**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC207_211124	Water	Interlab_D	284165	-	-	**2.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/11/2021	0902_SW023_211125	Water	Normal	ES2143118	**0.18**	**0.51**	-	**50**	<1	**0.19**	<1,000	**50**	**110**	**5.82**	**300**	**5.58**	**149**	**0.34**	**0.17**	**0.02**	**78**	**20**	**0.28**	**15**	**1.22**	**15**	**0.246**	**8**
	0902_QC108_211125	Water	Field_D	ES2143118	**0.19**	**0.48**	-	**51**	<1	**0.19**	<1,000	**51**	**110**	**5.81**	**300**	**5.54**	**148**	**0.66**	**0.17**	**0.02**	**77**	**20**	**0.22**	**15**	**1.18**	**15**	**0.246**	**8**
RPD					5	6	-	2	0	0	0	2	0	0	0	1	1	**64**	0	0	1	0	17	0	3	0	0	0
26/11/2021	0902_SW001_211126	Water	Normal	ES2143118	-	**7.08**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC208_211126	Water	Interlab_D	284165	-	-	**4.3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/11/2021	0902_SW003_211129	Water	Normal	ES2143536	**0.26**	**54.5**	-	**50**	<1	**0.09**	<1,000	**50**	**80**	**1.61**	<100	**1.55**	**13**	-	**0.09**	<0.01	**12**	**7**	**0.25**	**12**	**0.58**	**4**	**0.040**	**4**
	0902_QC211_211129	Water	Interlab_D	284165	-	-	**30**	**55**	<5	-	<5,000	**55**	**52**	-	**61**	-	**15**	-7.0	**0.061**	0.005	**12**	-	**0.27**	**12**	**0.63**	**3**	**0.041**	**4**
RPD					-	-	-	10	0	-	0	10	14	-	0	-	14	-	**38**	0	0	-	8	0	8	29	2	0
29/11/2021	0902_MW016_211129	Water	Normal	ES2143536	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC110_211129	Water	Field_D	ES2143536	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/11/2021	0902_MW002_211129	Water	Normal	ES2143536	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC212_211129	Water	Interlab_D	284165	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/11/2021	0902_MW001_211129	Water	Normal	ES2143536	**0.17**	**0.15**	-	**277**	<1	**0.08**	<1,000	**277**	**40**	**13.9**	**800**	**12.9**	**257**	**3.82**	**0.08**	<0.01	**125**	**54**	<0.01	**75**	<0.05	**45**	**0.066**	<1
	0902_QC112_211129	Water	Field_D	ES2143536	-	**0.18**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/11/2021	0902_MW114_211129	Water	Normal	ES2143536	-	**0.17**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC213_211129	Water	Interlab_D	284165	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/11/2021	0902_SW008_211129	Water	Normal	ES2143536	**0.54**	**0.13**	-	**54**	<1	**0.18**	<1,000	**54**	**120**	**2.86**	**100**	**2.63**	**52**	-	**0.18**	<0.01	**30**	**15**	**0.72**	**11**	**1.04**	**7**	**0.157**	**8**
	0902_QC113_211129	Water	Field_D	ES2143536	**0.61**	**0.18**	-	**49**	<1	**0.18**	<1,000	**49**	**120**	**2.90**	**100**	**2.63**	**54**	-	**0.18**	<0.01	**30**	**19**	**0.69**	**11**	**1.21**	**7**	**0.160**	**8**
RPD					12	**32**	-	10	0	0	0	10	0	1	0	0	4	-	0	0	0	24	4	0	15	0	2	0
29/11/2021	0902_SW009_211129	Water	Normal	ES2143536	**0.18**	**8.98**	-	**65**	<1	**0.08**	<1,000	**65**	**90**	**3.36**	**200**	**3.21**	**65**	**2.23**	**0.08**	<0.01	**38**	**11**	**0.11**	**14**	**1.11**	**8**	**0.353**	**8**
	0902_QC214_211129	Water	Interlab_D	284165	-	-	**12**	**66**	<5	-	<5,000	**66**	**86**	-	**300**	-	**74**	-12	**0.059**	0.005	**32**	-	**0.12**	**14**	**1.1**	**7.5**	**0.37**	**7.8**
RPD					-		-	2	0	-	0	2	7	-	**40**	-	13	**291**	30	0	17	-	9	0	1	6	5	3
29/11/2021	0902_SW013_211129	Water	Normal	ES2143536	-	**0.50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC115_211129	Water	Field_D	ES2143536	-	**0.54**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/12/2021	0902_MW120_211214	WATER	Normal	ES2145705	-	**0.02**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC116_211214	WATER	Field_D	ES2145705	-	**0.02**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/12/2021	0902_MW121_211214	WATER	Normal	ES2145705	-	**0.02**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0902_QC216_211214	WATER	Interlab_D	285371	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPD					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*RPDs have only been considered where a concentration is greater than 1 times the LOR.
**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each LOR multiplier range are: 1
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in

Table D2 - Sediment Relative Percent Difference

AECOM

					PFAS Full Suite																														NA	Inorganics
					10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS	Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFAS (WA DER List)	Moisture Content_
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%
LOR					**0.0002**	**0.0001**	**0.0001**	**0.0002**	**0.0005**	**0.0002**	**0.0005**	**0.0005**	**0.0002**	**0.0005**	**0.0001**	**0.0002**	**0.0002**	**0.0002**	**0.0002**	**0.0001**	**0.0001**	**0.0001**	**0.0002**	**0.0001**	**0.0002**	**0.0005**	**0.0002**	**0.0002**	**0.0001**	**0.0001**	**0.0001**	**0.0001**	**0.0001**	**0.0002**	**0.1**
Date	**Field ID**	**Matrix Type**	**Sample Type**	**Lab Report Number**																																
25/11/2021	0902_SD023_211125	Soil	Normal	ES2143118	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	**0.0098**	**0.0098**	**0.0094**	<0.0002	**0.0004**	**0.0098**	**39.3**
	0902_QC109_211125	Soil	Field_D	ES2143118	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	**0.0090**	**0.0090**	**0.0087**	<0.0002	**0.0003**	**0.0090**	**32.1**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9	8	0	29	9	20
26/11/2021	0902_SD001_211126	Soil	Normal	ES2143118	**0.718**	<0.0005	**0.132**	**5.35**	<0.0005	**0.0020**	<0.0005	<0.0005	**0.0024**	<0.0005	**0.0054**	<0.001	**0.322**	**6.81**	**8.99**	**0.0282**	**0.0339**	**0.0366**	**0.708**	**0.183**	**0.0075**	**0.0105**	**1.01**	**1.52**	**10.7**	**51.1**	**14.4**	**14.3**	**0.104**	**0.0885**	**20.1**	**53.0**
	0902_QC209_211126	Soil	Interlab_D	284165	**1.1**	<0.0001	**0.12**	**8.5**	<0.001	**0.0024**	<0.005	**0.002**	**0.0027**	<0.001	**0.0052**	**0.0042**	**0.28**	**5.6**	**11**	**0.028**	**0.037**	**0.029**	**0.66**	**0.37**	**0.0068**	**0.011**	**1.2**	**2.5**	**8.8**	**52**	**11**	**11**	**0.11**	**0.093**	-	**62**
RPD					**42**	0	10	**45**	0	18	0	**120**	12	0	4	**123**	14	20	20	1	9	23	7	**68**	10	5	17	**49**	19	2	27	26	6	5	-	16
29/11/2021	0902_SD003_211129	Soil	Normal	ES2143536	**0.0009**	<0.0005	**0.0013**	**0.0030**	<0.0005	**0.0003**	<0.0005	<0.0005	<0.0002	<0.0005	**0.0067**	**0.003**	**0.0534**	**0.0247**	**0.0490**	**0.0092**	**0.0039**	**0.0136**	**0.0076**	**0.0232**	**0.0073**	**0.0076**	<0.0005	**0.0110**	**0.0344**	**1.66**	**1.40**	**1.29**	**0.0094**	**0.106**	**1.44**	**66.7**
	0902_QC210_211129	Soil	Interlab_D	284165	**0.002**	<0.0001	**0.0014**	**0.01**	<0.001	0.0002	<0.005	<0.001	<0.0002	<0.001	**0.0038**	**0.002**	**0.015**	**0.025**	**0.051**	**0.011**	**0.0022**	**0.0073**	**0.0068**	**0.024**	**0.0046**	**0.0031**	**0.005**	**0.03**	**0.029**	**1.4**	**1.1**	**1.1**	**0.0054**	**0.07**	-	**63**
RPD					**76**	0	7	**108**	0	**40**	0	0	0	0	**55**	**40**	**112**	1	4	18	**56**	**60**	11	3	**45**	**84**	164	**93**	17	17	24	16	**54**	**41**	-	6
29/11/2021	0902_SD007_211129	Soil	Normal	ES2143536	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	**0.0129**	**0.0129**	**0.0121**	<0.0002	**0.0008**	**0.0129**	**45.1**
	0902_QC111_211129	Soil	Field_D	ES2143536	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	**0.0115**	**0.0112**	**0.0100**	<0.0002	**0.0012**	**0.0115**	**50.5**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**40**	0	0	0	0	0	0	0	11	14	19	0	**40**	11	11
29/11/2021	0902_SD008_211129	Soil	Normal	ES2143536	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	**0.0009**	<0.0002	**0.0010**	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	**0.0086**	**0.0067**	**0.0056**	<0.0002	**0.0011**	**0.0067**	**56.5**
	0902_QC114_211129	Soil	Field_D	ES2143536	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	**0.0046**	**0.0046**	**0.0036**	<0.0002	**0.0010**	**0.0046**	**56.3**
RPD					0	0	0	0	0	0	0	0	0	0	0	0	0	**127**	0	**133**	0	0	0	0	0	0	0	0	0	**61**	**37**	**43**	0	10	**37**	0
29/11/2021	0902_SD009_211129	Soil	Normal	ES2143536	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	**0.0003**	<0.001	**0.0010**	<0.0002	**0.0005**	**0.0003**	<0.0002	**0.0006**	<0.0002	**0.0003**	**0.0003**	<0.0002	<0.0005	<0.0002	<0.0002	**0.0561**	**0.0525**	**0.0493**	**0.0003**	**0.0032**	**0.0537**	**54.4**
	0902_QC215_211129	Soil	Interlab_D	284165	**0.0003**	<0.0001	0.0001	**0.0004**	<0.001	<0.0002	<0.005	<0.001	<0.0002	<0.001	**0.0002**	<0.0002	**0.0006**	<0.0005	**0.001**	**0.0005**	**0.0002**	**0.0004**	**0.0002**	<0.001	**0.0002**	**0.0004**	<0.005	**0.001**	**0.0006**	**0.057**	**0.05**	**0.047**	**0.0003**	**0.0031**	-	**50**
RPD					0	0	0	0	0	0	0	0	0	0	**40**	0	**50**	0	**67**	**50**	0	**40**	0	0	**40**	**67**	0	**133**	**100**	2	5	5	0	3	-	8

***RPDs have only been considered where a concentration is greater than 1 times the LOR.**
****Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each LOR multiplier range are: 30 (1 - 10 x LOR); 30 (10 - 30 x LOR); 30 (> 30 x LOR))**
*****Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory**

Table D3 - Rinsate Results

AECOM

				PFAS Full Suite																																				Metals			
				10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS	Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic Acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFAS (WA DER List)	Bromine (Filtered)	Aluminium (Filtered)	Iron (Filtered)	Manganese (Filtered)
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L
LOR				0.05	0.05	0.05	0.05	0.05	0.02	0.05	0.05	0.02	0.05	0.02	0.1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	100	0.01	0.05	0.001
Field ID	**Sampled Date**	**Sample Type**	**Lab Report Number**																																								
0902_QC300_211122	22/11/2021	Rinsate	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<100	<0.01	<0.05	<0.001
0902_QC301_211123	23/11/2021	Rinsate	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<100	<0.01	<0.05	<0.001
0902_QC302_211124	24/11/2021	Rinsate	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<100	<0.01	<0.05	<0.001
0902_QC303_211125	25/11/2021	Rinsate	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<100	<0.01	<0.05	<0.001
0902_QC304_211126	26/11/2021	Rinsate	ES2143118	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<100	<0.01	<0.05	<0.001
0902_QC305_211129	29/11/2021	Rinsate	ES2143536	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<100	<0.01	<0.05	<0.001
0902_QC306_211214	14/12/2021	Rinsate	ES2145705	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-

Appendix E

Laboratory Certificates

Appendix E Laboratory Certificates

CHAIN OF CUSTODY

COC#: **30538** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY: JUSTIN
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME: 23/11/21 6.40pm

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 1.0 °C

Other comments:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Ayrton Donegan QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

ATC 6.40pm

Environmental Division Sydney

Work Order Reference

ES2142389

Telephone : +61-2-8784 8555

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW007_211123		23/11/2021 10:55 AM	Water	ALS: 4 Non ALS: 0	No	X			
002	0902_MW008_211123		23/11/2021 09:16 AM	Water	ALS: 4 Non ALS: 0	No	X			
003	0902_MW009_211123		23/11/2021 09:29 AM	Water	ALS: 4 Non ALS: 0	No	X			
004	0902_MW010_211123		23/11/2021 09:53 AM	Water	ALS: 7 Non ALS: 0	No	X	X	please add NT-01 And NT-02	SHORT HOLDING TIME
005	0902_MW023_211122		22/11/2021 09:14 AM	Water	ALS: 4 Non ALS: 0	No	X			
006	0902_MW025_211122		22/11/2021 02:21 PM	Water	ALS: 4 Non ALS: 0	No	X			
007	0902_MW026_211122		22/11/2021 10:58 AM	Water	ALS: 4 Non ALS: 0	No	X			
008	0902_MW028_211123		23/11/2021 11:25 AM	Water	ALS: 4 Non ALS: 0	No	X			
009	0902_MW036_211122		22/11/2021 10:28 AM	Water	ALS: 4 Non ALS: 0	No	X			

CHAIN OF CUSTODY

ALS COC#: **30538** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY: JUSTIN
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME: 23/11/21 6:40pm

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Ayrton Donegan QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_MW040_211123		23/11/2021 11:40 AM	Water	ALS: 4 Non ALS: 0	No	X			
011	0902_MW041_211123		23/11/2021 10:13 AM	Water	ALS: 4 Non ALS: 0	No	X			
012	0902_MW042_211123		23/11/2021 10:27 AM	Water	ALS: 4 Non ALS: 0	No	X			
013	0902_MW046_211122		22/11/2021 01:26 PM	Water	ALS: 4 Non ALS: 0	No	X			
014	0902_MW062_211122		22/11/2021 02:08 PM	Water	ALS: 4 Non ALS: 0	No	X			
015	0902_MW063_211122		22/11/2021 01:54 PM	Water	ALS: 4 Non ALS: 0	No	X			
016	0902_MW065_211122		22/11/2021 11:18 AM	Water	ALS: 4 Non ALS: 0	No	X			
017	0902_MW066_211122		22/11/2021 11:31 AM	Water	ALS: 4 Non ALS: 0	No	X			
018	0902_MW064_211122		22/11/2021 11:51 AM	Water	ALS: 4 Non ALS: 0	No	X			

CHAIN OF CUSTODY

(ALS) COC#: **30538** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	JUSTIN DATE TIME: 22/11/21 6:40pm

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Ayrton Donegan QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0902_MW067_211122		22/11/2021 02:37 PM	Water	ALS: 4 Non ALS: 0	No	X			
020	0902_MW068_211123		23/11/2021 07:48 AM	Water	ALS: 4 Non ALS: 0	No	X			
021	0902_MW069_211123		23/11/2021 07:35 AM	Water	ALS: 4 Non ALS: 0	No	X			
022	0902_MW070_211122		22/11/2021 03:06 PM	Water	ALS: 4 Non ALS: 0	No	X			
023	0902_MW071_211122		22/11/2021 02:53 PM	Water	ALS: 4 Non ALS: 0	No	X			
024	0902_MW086_211122		22/11/2021 03:50 PM	Water	ALS: 4 Non ALS: 0	No	X			
025	0902_MW109_211122		22/11/2021 08:23 AM	Water	ALS: 4 Non ALS: 0	No	X			
026	0902_MW110_211122		22/11/2021 09:37 AM	Water	ALS: 4 Non ALS: 0	No	X			
027	0902_MW022_211122		22/11/2021 08:56 AM	Water	ALS: 8 Non ALS: 0	No	X	X	please add NT-01 And NT-02	SHORT HOLDING TIME

CHAIN OF CUSTODY

(ALS) COC#: 30538 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Ayrton Donegan QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	JUSTIN DATE TIME: 23/11/21 6.40pm

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW007_211123	HDPE (no PTFE)	20 mL	00350621061526	Grey	No	
001	0902_MW007_211123	HDPE (no PTFE)	20 mL	00350621041546	Grey	No	
001	0902_MW007_211123	HDPE (no PTFE)	20 mL	00350621061472	Grey	No	
001	0902_MW007_211123	HDPE (no PTFE)	20 mL	00350621041643	Grey	No	
002	0902_MW008_211123	HDPE (no PTFE)	20 mL	00350621041606	Grey	No	
002	0902_MW008_211123	HDPE (no PTFE)	20 mL	00350621041749	Grey	No	
002	0902_MW008_211123	HDPE (no PTFE)	20 mL	00350621041732	Grey	No	
002	0902_MW008_211123	HDPE (no PTFE)	20 mL	00350621041625	Grey	No	
003	0902_MW009_211123	HDPE (no PTFE)	20 mL	00350621041662	Grey	No	
003	0902_MW009_211123	HDPE (no PTFE)	20 mL	00350621041719	Grey	No	
003	0902_MW009_211123	HDPE (no PTFE)	20 mL	00350621041717	Grey	No	
003	0902_MW009_211123	HDPE (no PTFE)	20 mL	00350621041596	Grey	No	
004	0902_MW010_211123	HDPE (no PTFE)	20 mL	00350621041590	Grey	No	
004	0902_MW010_211123	HDPE (no PTFE)	20 mL	00350621041526	Grey	No	
004	0902_MW010_211123	HDPE (no PTFE)	20 mL	00350621041631	Grey	No	
004	0902_MW010_211123	HDPE (no PTFE)	20 mL	00350621041699	Grey	No	
004	0902_MW010_211123	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020077597	Purple	No	
004	0902_MW010_211123	Clear Plastic Bottle - Natural	500 mL	00070121090831	Green	No	
004	0902_MW010_211123	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019225	Red	Yes	
005	0902_MW023_211122	HDPE (no PTFE)	20 mL	00350621041784	Grey	No	
005	0902_MW023_211122	HDPE (no PTFE)	20 mL	00350621041589	Grey	No	
005	0902_MW023_211122	HDPE (no PTFE)	20 mL	00350621041615	Grey	No	
005	0902_MW023_211122	HDPE (no PTFE)	20 mL	00350621041518	Grey	No	
006	0902_MW025_211122	HDPE (no PTFE)	20 mL	00350621041770	Grey	No	
006	0902_MW025_211122	HDPE (no PTFE)	20 mL	00350621041775	Grey	No	
006	0902_MW025_211122	HDPE (no PTFE)	20 mL	00350621041679	Grey	No	

CHAIN OF CUSTODY

COC#: 30538 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME: JUSTIN 23/11/21 6.40pm

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

006	0902_MW025_211122	HDPE (no PTFE)	20 mL	00350621041512	Grey	No	
007	0902_MW026_211122	HDPE (no PTFE)	20 mL	00350621041551	Grey	No	
007	0902_MW026_211122	HDPE (no PTFE)	20 mL	00350621041629	Grey	No	
007	0902_MW026_211122	HDPE (no PTFE)	20 mL	00350621041600	Grey	No	
007	0902_MW026_211122	HDPE (no PTFE)	20 mL	00350621041576	Grey	No	
008	0902_MW028_211123	HDPE (no PTFE)	20 mL	00350621061461	Grey	No	
008	0902_MW028_211123	HDPE (no PTFE)	20 mL	00350621061699	Grey	No	
008	0902_MW028_211123	HDPE (no PTFE)	20 mL	00350621061516	Grey	No	
008	0902_MW028_211123	HDPE (no PTFE)	20 mL	00350621061420	Grey	No	
009	0902_MW036_211122	HDPE (no PTFE)	20 mL	00350621041692	Grey	No	
009	0902_MW036_211122	HDPE (no PTFE)	20 mL	00350621041777	Grey	No	
009	0902_MW036_211122	HDPE (no PTFE)	20 mL	00350621041783	Grey	No	
009	0902_MW036_211122	HDPE (no PTFE)	20 mL	00350621041689	Grey	No	
010	0902_MW040_211123	HDPE (no PTFE)	20 mL	00350621061557	Grey	No	
010	0902_MW040_211123	HDPE (no PTFE)	20 mL	00350621061480	Grey	No	
010	0902_MW040_211123	HDPE (no PTFE)	20 mL	00350621061551	Grey	No	
010	0902_MW040_211123	HDPE (no PTFE)	20 mL	00350621061452	Grey	No	
011	0902_MW041_211123	HDPE (no PTFE)	20 mL	00350621041736	Grey	No	
011	0902_MW041_211123	HDPE (no PTFE)	20 mL	00350621041748	Grey	No	
011	0902_MW041_211123	HDPE (no PTFE)	20 mL	00350621041738	Grey	No	
011	0902_MW041_211123	HDPE (no PTFE)	20 mL	00350621041528	Grey	No	
012	0902_MW042_211123	HDPE (no PTFE)	20 mL	00350621041659	Grey	No	
012	0902_MW042_211123	HDPE (no PTFE)	20 mL	00350621061685	Grey	No	
012	0902_MW042_211123	HDPE (no PTFE)	20 mL	00350621061449	Grey	No	
012	0902_MW042_211123	HDPE (no PTFE)	20 mL	00350621041574	Grey	No	
013	0902_MW046_211122	HDPE (no PTFE)	20 mL	00350621041744	Grey	No	
013	0902_MW046_211122	HDPE (no PTFE)	20 mL	00350621041757	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: **30538** *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY: JUSTIN
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME: 23/11/21 6.40pm

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

013	0902_MW046_211122	HDPE (no PTFE)	20 mL	00350621041628	Grey	No	
013	0902_MW046_211122	HDPE (no PTFE)	20 mL	00350621041509	Grey	No	
014	0902_MW062_211122	HDPE (no PTFE)	20 mL	00350621041779	Grey	No	
014	0902_MW062_211122	HDPE (no PTFE)	20 mL	00350621041724	Grey	No	
014	0902_MW062_211122	HDPE (no PTFE)	20 mL	00350621041548	Grey	No	
014	0902_MW062_211122	HDPE (no PTFE)	20 mL	00350621041785	Grey	No	
015	0902_MW063_211122	HDPE (no PTFE)	20 mL	00350621041602	Grey	No	
015	0902_MW063_211122	HDPE (no PTFE)	20 mL	00350621041552	Grey	No	
015	0902_MW063_211122	HDPE (no PTFE)	20 mL	00350621041638	Grey	No	
015	0902_MW063_211122	HDPE (no PTFE)	20 mL	00350621041674	Grey	No	
016	0902_MW065_211122	HDPE (no PTFE)	20 mL	00350621041703	Grey	No	
016	0902_MW065_211122	HDPE (no PTFE)	20 mL	00350621041709	Grey	No	
016	0902_MW065_211122	HDPE (no PTFE)	20 mL	00350621041747	Grey	No	
016	0902_MW065_211122	HDPE (no PTFE)	20 mL	00350621041737	Grey	No	
017	0902_MW066_211122	HDPE (no PTFE)	20 mL	00350621041563	Grey	No	
017	0902_MW066_211122	HDPE (no PTFE)	20 mL	00350621041616	Grey	No	
017	0902_MW066_211122	HDPE (no PTFE)	20 mL	00350621041690	Grey	No	
017	0902_MW066_211122	HDPE (no PTFE)	20 mL	00350621041653	Grey	No	
018	0902_MW064_211122	HDPE (no PTFE)	20 mL	00350621041648	Grey	No	
018	0902_MW064_211122	HDPE (no PTFE)	20 mL	00350621041646	Grey	No	
018	0902_MW064_211122	HDPE (no PTFE)	20 mL	00350621041650	Grey	No	
018	0902_MW064_211122	HDPE (no PTFE)	20 mL	00350621041705	Grey	No	
019	0902_MW067_211122	HDPE (no PTFE)	20 mL	00350621041734	Grey	No	
019	0902_MW067_211122	HDPE (no PTFE)	20 mL	00350621041630	Grey	No	
019	0902_MW067_211122	HDPE (no PTFE)	20 mL	00350621041675	Grey	No	
019	0902_MW067_211122	HDPE (no PTFE)	20 mL	00350621041725	Grey	No	
020	0902_MW068_211123	HDPE (no PTFE)	20 mL	00350621041758	Grey	No	

CHAIN OF CUSTODY

COC#: **30538** *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	JUSTIN DATE TIME: 23/11/21 6:44pm

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

020	0902_MW068_211123	HDPE (no PTFE)	20 mL	00350621041637	Grey	No	
020	0902_MW068_211123	HDPE (no PTFE)	20 mL	00350621041581	Grey	No	
020	0902_MW068_211123	HDPE (no PTFE)	20 mL	00350621041765	Grey	No	
021	0902_MW069_211123	HDPE (no PTFE)	20 mL	00350621041673	Grey	No	
021	0902_MW069_211123	HDPE (no PTFE)	20 mL	00350621041726	Grey	No	
021	0902_MW069_211123	HDPE (no PTFE)	20 mL	00350621041721	Grey	No	
021	0902_MW069_211123	HDPE (no PTFE)	20 mL	00350621041780	Grey	No	
022	0902_MW070_211122	HDPE (no PTFE)	20 mL	00350621041640	Grey	No	
022	0902_MW070_211122	HDPE (no PTFE)	20 mL	00350621041769	Grey	No	
022	0902_MW070_211122	HDPE (no PTFE)	20 mL	00350621041760	Grey	No	
022	0902_MW070_211122	HDPE (no PTFE)	20 mL	00350621041660	Grey	No	
023	0902_MW071_211122	HDPE (no PTFE)	20 mL	00350621041786	Grey	No	
023	0902_MW071_211122	HDPE (no PTFE)	20 mL	00350621041763	Grey	No	
023	0902_MW071_211122	HDPE (no PTFE)	20 mL	00350621041687	Grey	No	
023	0902_MW071_211122	HDPE (no PTFE)	20 mL	00350621041731	Grey	No	
024	0902_MW086_211122	HDPE (no PTFE)	20 mL	00350621041557	Grey	No	
024	0902_MW086_211122	HDPE (no PTFE)	20 mL	00350621041718	Grey	No	
024	0902_MW086_211122	HDPE (no PTFE)	20 mL	00350621041639	Grey	No	
024	0902_MW086_211122	HDPE (no PTFE)	20 mL	00350621041678	Grey	No	
025	0902_MW109_211122	HDPE (no PTFE)	20 mL	00350621041654	Grey	No	
025	0902_MW109_211122	HDPE (no PTFE)	20 mL	00350621041565	Grey	No	
025	0902_MW109_211122	HDPE (no PTFE)	20 mL	00350621041591	Grey	No	
025	0902_MW109_211122	HDPE (no PTFE)	20 mL	00350621041622	Grey	No	
026	0902_MW110_211122	HDPE (no PTFE)	20 mL	00350621041741	Grey	No	
026	0902_MW110_211122	HDPE (no PTFE)	20 mL	00350621041599	Grey	No	
026	0902_MW110_211122	HDPE (no PTFE)	20 mL	00350621041605	Grey	No	
026	0902_MW110_211122	HDPE (no PTFE)	20 mL	00350621041513	Grey	No	

CHAIN OF CUSTODY

ALS COC#: **30538** *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	JUSTIN DATE TIME: 23/11/21 6.40pm

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

027	0902_MW022_211122	Clear Plastic Bottle - Natural	500 mL	00070621190859	Green	No	
027	0902_MW022_211122	Clear Plastic Bottle - Natural	500 mL	00070621190879	Green	No	
027	0902_MW022_211122	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019130	Red	Yes	
027	0902_MW022_211122	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020081890	Purple	No	
027	0902_MW022_211122	HDPE (no PTFE)	20 mL	00350621041781	Grey	No	
027	0902_MW022_211122	HDPE (no PTFE)	20 mL	00350621041711	Grey	No	
027	0902_MW022_211122	HDPE (no PTFE)	20 mL	00350621041752	Grey	No	
027	0902_MW022_211122	HDPE (no PTFE)	20 mL	00350621041611	Grey	No	
028	0902_QC100_211122	HDPE (no PTFE)	20 mL	00350621041617	Grey	No	
028	0902_QC100_211122	HDPE (no PTFE)	20 mL	00350621041753	Grey	No	
028	0902_QC100_211122	HDPE (no PTFE)	20 mL	00350621041571	Grey	No	
028	0902_QC100_211122	HDPE (no PTFE)	20 mL	00350621041610	Grey	No	
029	0902_QC101_211122	HDPE (no PTFE)	20 mL	00350621041686	Grey	No	
029	0902_QC101_211122	HDPE (no PTFE)	20 mL	00350621041669	Grey	No	
029	0902_QC101_211122	HDPE (no PTFE)	20 mL	00350621041539	Grey	No	
029	0902_QC101_211122	HDPE (no PTFE)	20 mL	00350621041594	Grey	No	
030	0902_QC102_211123	HDPE (no PTFE)	20 mL	00350621041655	Grey	No	
030	0902_QC102_211123	HDPE (no PTFE)	20 mL	00350621041762	Grey	No	
030	0902_QC102_211123	HDPE (no PTFE)	20 mL	00350621041666	Grey	No	
030	0902_QC102_211123	HDPE (no PTFE)	20 mL	00350621041542	Grey	No	
031	0902_QC103_211123	HDPE (no PTFE)	20 mL	00350621061504	Grey	No	
031	0902_QC103_211123	HDPE (no PTFE)	20 mL	00350621061451	Grey	No	
031	0902_QC103_211123	HDPE (no PTFE)	20 mL	00350621061539	Grey	No	
031	0902_QC103_211123	HDPE (no PTFE)	20 mL	00350621061485	Grey	No	

Total Bottle Count: ALS: 131, Non ALS: 0

CHAIN OF CUSTODY

ALS COC#: **30538** *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME: JUSTIN 23/11/21 6.40pm

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
028	0902_QC100_211122		22/11/2021 08:24 AM	Water	ALS: 4 Non ALS: 0	No	X			
029	0902_QC101_211122		22/11/2021 11:19 AM	Water	ALS: 4 Non ALS: 0	No	X			
030	0902_QC102_211123		23/11/2021 09:15 AM	Water	ALS: 4 Non ALS: 0	No	X			
031	0902_QC103_211123		23/11/2021 11:41 AM	Water	ALS: 4 Non ALS: 0	No	X			

32 MW043

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2142389**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Christopher.Redford@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 3
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 30538	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Richmond		
Sampler	: ANDREW SPOOR, AYRTON DONEGAN		

Dates

Date Samples Received	: 23-Nov-2021 18:40	Issue Date	: 24-Nov-2021
Client Requested Due Date	: 01-Dec-2021	Scheduled Reporting Date	: **01-Dec-2021**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 1.0'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 32 / 32

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Extra sample received: M043.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EG020F Dissolved Metals by ICP/MS	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EK067G Total Phosphorus as P By Discrete Analyser	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-04 Nitrite and Nitrate
ES2142389-001	23-Nov-2021 10:55	0902_MW007_211123				✓		
ES2142389-002	23-Nov-2021 09:16	0902_MW008_211123				✓		
ES2142389-003	23-Nov-2021 09:29	0902_MW009_211123				✓		
ES2142389-004	23-Nov-2021 09:53	0902_MW010_211123	✓	✓	✓	✓	✓	✓
ES2142389-005	22-Nov-2021 09:14	0902_MW023_211122				✓		
ES2142389-006	22-Nov-2021 14:21	0902_MW025_211122				✓		
ES2142389-007	22-Nov-2021 10:58	0902_MW026_211122				✓		
ES2142389-008	23-Nov-2021 11:25	0902_MW028_211123				✓		
ES2142389-009	22-Nov-2021 10:28	0902_MW036_211122				✓		
ES2142389-010	23-Nov-2021 11:40	0902_MW040_211123				✓		
ES2142389-011	23-Nov-2021 10:13	0902_MW041_211123				✓		
ES2142389-012	23-Nov-2021 10:27	0902_MW042_211123				✓		
ES2142389-013	22-Nov-2021 13:26	0902_MW046_211122				✓		
ES2142389-014	22-Nov-2021 14:08	0902_MW062_211122				✓		
ES2142389-015	22-Nov-2021 13:54	0902_MW063_211122				✓		
ES2142389-016	22-Nov-2021 11:18	0902_MW065_211122				✓		
ES2142389-017	22-Nov-2021 11:31	0902_MW066_211122				✓		
ES2142389-018	22-Nov-2021 11:51	0902_MW064_211122				✓		
ES2142389-019	22-Nov-2021 14:37	0902_MW067_211122				✓		
ES2142389-020	23-Nov-2021 07:48	0902_MW068_211123				✓		
ES2142389-021	23-Nov-2021 07:35	0902_MW069_211123				✓		
ES2142389-022	22-Nov-2021 15:06	0902_MW070_211122				✓		
ES2142389-023	22-Nov-2021 14:53	0902_MW071_211122				✓		
ES2142389-024	22-Nov-2021 15:50	0902_MW086_211122				✓		
ES2142389-025	22-Nov-2021 08:23	0902_MW109_211122				✓		
ES2142389-026	22-Nov-2021 09:37	0902_MW110_211122				✓		
ES2142389-027	22-Nov-2021 08:56	0902_MW022_211122	✓	✓	✓	✓	✓	✓
ES2142389-028	22-Nov-2021 08:24	0902_QC100_211122				✓		
ES2142389-029	22-Nov-2021 11:19	0902_QC101_211122				✓		
ES2142389-030	23-Nov-2021 09:15	0902_QC102_211123				✓		
ES2142389-031	23-Nov-2021 11:41	0902_QC103_211123				✓		
ES2142389-032	23-Nov-2021 00:00	0902_MW043_211123				✓		

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

ANDREW SPOOR

- *AU Certificate of Analysis - NATA (COA)	Email	Andrew.Spoor@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Andrew.Spoor@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Andrew.Spoor@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Andrew.Spoor@aecom.com
- Chain of Custody (CoC) (COC)	Email	Andrew.Spoor@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Andrew.Spoor@aecom.com
- EDI Format - XTab (XTAB)	Email	Andrew.Spoor@aecom.com

AYRTON DONEGAN

- *AU Certificate of Analysis - NATA (COA)	Email	ayrton.donegan@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	ayrton.donegan@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	ayrton.donegan@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	ayrton.donegan@aecom.com
- Chain of Custody (CoC) (COC)	Email	ayrton.donegan@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	ayrton.donegan@aecom.com
- EDI Format - XTab (XTAB)	Email	ayrton.donegan@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2142389**	Page	: 1 of 21
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 23-Nov-2021 18:40
Order number	: 60612562_5.1	Date Analysis Commenced	: 24-Nov-2021
C-O-C number	: 30538	Issue Date	: 01-Dec-2021 14:10
Sampler	: ANDREW SPOOR, AYRTON DONEGAN		
Site	: Richmond		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 32		
No. of samples analysed	: 32		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EG020: Bromine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- EP231X: PFAS results for sample #10 confirmed by re-extraction and re-analysis.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW007_211123	0902_MW008_211123	0902_MW009_211123	0902_MW010_211123	0902_MW023_211122
				Sampling date / time	23-Nov-2021 10:55	23-Nov-2021 09:16	23-Nov-2021 09:29	23-Nov-2021 09:53	22-Nov-2021 09:14
Compound	CAS Number	LOR	Unit		ES2142389-001	ES2142389-002	ES2142389-003	ES2142389-004	ES2142389-005
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	----	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	----	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	----	**155**	----
Total Alkalinity as CaCO3	----	1	mg/L		----	----	----	**155**	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	----	**19**	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	----	**303**	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	----	**36**	----
Magnesium	7439-95-4	1	mg/L		----	----	----	**24**	----
Sodium	7440-23-5	1	mg/L		----	----	----	**171**	----
Potassium	7440-09-7	1	mg/L		----	----	----	**2**	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	----	<0.01	----
Manganese	7439-96-5	0.001	mg/L		----	----	----	**0.702**	----
Iron	7439-89-6	0.05	mg/L		----	----	----	**2.65**	----
Bromine	7726-95-6	0.1	mg/L		----	----	----	**0.6**	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	----	**0.04**	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	----	<0.01	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	----	**0.11**	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	----	**0.11**	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	----	**0.66**	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	----	----	**12.0**	----
ø Total Cations	----	0.01	meq/L		----	----	----	**11.3**	----
ø Ionic Balance	----	0.01	%		----	----	----	**3.34**	----
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW007_211123	0902_MW008_211123	0902_MW009_211123	0902_MW010_211123	0902_MW023_211122
				Sampling date / time	23-Nov-2021 10:55	23-Nov-2021 09:16	23-Nov-2021 09:29	23-Nov-2021 09:53	22-Nov-2021 09:14
Compound	CAS Number	LOR	Unit		ES2142389-001	ES2142389-002	ES2142389-003	ES2142389-004	ES2142389-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.02**	**0.20**	<0.02	**0.04**	**0.02**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.12**	<0.02	**0.02**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.05**	**0.56**	**0.02**	**0.16**	**0.06**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.05**	**0.06**	**0.16**	**0.11**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.02**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.10**	<0.02	**0.07**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW007_211123	0902_MW008_211123	0902_MW009_211123	0902_MW010_211123	0902_MW023_211122
				Sampling date / time	23-Nov-2021 10:55	23-Nov-2021 09:16	23-Nov-2021 09:29	23-Nov-2021 09:53	22-Nov-2021 09:14
Compound	CAS Number	LOR	Unit		ES2142389-001	ES2142389-002	ES2142389-003	ES2142389-004	ES2142389-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.07**	**1.05**	**0.08**	**0.45**	**0.19**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.05**	**0.61**	**0.08**	**0.32**	**0.17**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.07**	**0.93**	**0.08**	**0.43**	**0.19**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**82.9**	**86.1**	**80.6**	**81.8**	**85.8**
13C8-PFOA	----	0.02	%		**89.2**	**95.5**	**91.1**	**91.8**	**93.1**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW025_211122	0902_MW026_211122	0902_MW028_211123	0902_MW036_211122	0902_MW040_211123
				Sampling date / time	22-Nov-2021 14:21	22-Nov-2021 10:58	23-Nov-2021 11:25	22-Nov-2021 10:28	23-Nov-2021 11:40
					ES2142389-006	ES2142389-007	ES2142389-008	ES2142389-009	ES2142389-010
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.78**	**1.70**	**0.27**	**6.39**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.60**	**1.28**	**0.14**	**5.61**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.03**	**3.84**	**4.31**	**0.60**	**41.6**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.15**	<0.02	<0.02	**2.50**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	**0.74**	**0.12**	**0.04**	**74.7**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.43**
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.2**	<0.1	**1.3**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.16**	**0.43**	**0.04**	**2.60**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.02**	**0.73**	**2.18**	**0.14**	**12.7**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.11**	**0.26**	<0.02	**1.35**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.18**	**0.07**	**0.01**	**2.54**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.07**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.02**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.18**
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW025_211122	0902_MW026_211122	0902_MW028_211123	0902_MW036_211122	0902_MW040_211123
				Sampling date / time	22-Nov-2021 14:21	22-Nov-2021 10:58	23-Nov-2021 11:25	22-Nov-2021 10:28	23-Nov-2021 11:40
					ES2142389-006	ES2142389-007	ES2142389-008	ES2142389-009	ES2142389-010
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	**0.14**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	**0.05**
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.07**	**7.29**	**10.6**	**1.24**	**152**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.05**	**4.58**	**4.43**	**0.64**	**116**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.07**	**6.54**	**9.27**	**1.10**	**143**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**87.3**	**89.3**	**94.9**	**83.7**	**93.9**
13C8-PFOA	----	0.02	%		**97.5**	**90.0**	**90.2**	**95.1**	**94.7**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW041_211123	0902_MW042_211123	0902_MW046_211122	0902_MW062_211122	0902_MW063_211122
				Sampling date / time	23-Nov-2021 10:13	23-Nov-2021 10:27	22-Nov-2021 13:26	22-Nov-2021 14:08	22-Nov-2021 13:54
					ES2142389-011	ES2142389-012	ES2142389-013	ES2142389-014	ES2142389-015
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.36**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.24**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.08**	<0.01	**0.03**	**0.14**	**1.06**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.02**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.05**	<0.01	<0.01	**0.28**	**0.22**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	**0.17**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	**0.60**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.08**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.05**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW041_211123	0902_MW042_211123	0902_MW046_211122	0902_MW062_211122	0902_MW063_211122
				Sampling date / time	23-Nov-2021 10:13	23-Nov-2021 10:27	22-Nov-2021 13:26	22-Nov-2021 14:08	22-Nov-2021 13:54
					ES2142389-011	ES2142389-012	ES2142389-013	ES2142389-014	ES2142389-015
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.13**	<0.01	**0.03**	**0.46**	**2.80**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.13**	<0.01	**0.03**	**0.42**	**1.28**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.13**	<0.01	**0.03**	**0.46**	**2.54**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**91.9**	**82.5**	**88.5**	**87.0**	**85.1**
13C8-PFOA	----	0.02	%		**95.1**	**96.3**	**97.4**	**91.2**	**89.5**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW065_211122	0902_MW066_211122	0902_MW064_211122	0902_MW067_211122	0902_MW068_211123
				Sampling date / time	22-Nov-2021 11:18	22-Nov-2021 11:31	22-Nov-2021 11:51	22-Nov-2021 14:37	23-Nov-2021 07:48
Compound	CAS Number	LOR	Unit		ES2142389-016	ES2142389-017	ES2142389-018	ES2142389-019	ES2142389-020
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.04**	**0.11**	**0.23**	<0.02	**0.13**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.03**	**0.09**	**0.06**	<0.02	**0.15**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.18**	**0.62**	**0.38**	**0.03**	**1.68**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.02**	<0.02	<0.02	**0.05**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.01**	**0.25**	**0.14**	**0.01**	**0.33**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.03**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.05**	**0.03**	<0.02	**0.22**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.03**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.02**	**0.01**	<0.01	**0.07**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW065_211122	0902_MW066_211122	0902_MW064_211122	0902_MW067_211122	0902_MW068_211123
				Sampling date / time	22-Nov-2021 11:18	22-Nov-2021 11:31	22-Nov-2021 11:51	22-Nov-2021 14:37	23-Nov-2021 07:48
Compound	CAS Number	LOR	Unit		ES2142389-016	ES2142389-017	ES2142389-018	ES2142389-019	ES2142389-020
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.26**	**1.16**	**0.85**	**0.04**	**2.69**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.19**	**0.87**	**0.52**	**0.04**	**2.01**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.23**	**1.05**	**0.79**	**0.04**	**2.49**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**83.6**	**81.4**	**89.4**	**89.1**	**86.8**
13C8-PFOA	----	0.02	%		**97.4**	**91.3**	**93.8**	**96.6**	**92.0**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW069_211123	0902_MW070_211122	0902_MW071_211122	0902_MW086_211122	0902_MW109_211122
				Sampling date / time	23-Nov-2021 07:35	22-Nov-2021 15:06	22-Nov-2021 14:53	22-Nov-2021 15:50	22-Nov-2021 08:23
					ES2142389-021	ES2142389-022	ES2142389-023	ES2142389-024	ES2142389-025
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.08**	**0.64**	**0.15**	<0.02	**0.50**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.03**	**0.21**	**0.03**	<0.02	**0.41**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.28**	**1.68**	**0.34**	<0.01	**2.87**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.05**	**0.03**	<0.02	**0.19**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.36**	**0.86**	**1.07**	<0.01	**3.50**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.1**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.20**	**0.09**	<0.02	**0.12**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.05**	**0.48**	**0.11**	<0.02	**0.69**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.11**	**0.04**	<0.02	**0.11**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.03**	**0.16**	**0.05**	<0.01	**0.20**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW069_211123	0902_MW070_211122	0902_MW071_211122	0902_MW086_211122	0902_MW109_211122
				Sampling date / time	23-Nov-2021 07:35	22-Nov-2021 15:06	22-Nov-2021 14:53	22-Nov-2021 15:50	22-Nov-2021 08:23
Compound	CAS Number	LOR	Unit		ES2142389-021	ES2142389-022	ES2142389-023	ES2142389-024	ES2142389-025
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.83**	**4.49**	**1.91**	<0.01	**8.59**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.64**	**2.54**	**1.41**	<0.01	**6.37**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.80**	**4.23**	**1.85**	<0.01	**7.99**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**80.8**	**83.1**	**80.8**	**88.7**	**88.0**
13C8-PFOA	----	0.02	%		**94.5**	**96.0**	**93.4**	**92.8**	**91.7**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW110_211122	0902_MW022_211122	0902_QC100_211122	0902_QC101_211122	0902_QC102_211123
				Sampling date / time	22-Nov-2021 09:37	22-Nov-2021 08:56	22-Nov-2021 08:24	22-Nov-2021 11:19	23-Nov-2021 09:15
Compound	CAS Number	LOR	Unit		ES2142389-026	ES2142389-027	ES2142389-028	ES2142389-029	ES2142389-030
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	<1	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	<1	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	515	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L		----	515	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	74	----	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	618	----	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	126	----	----	----
Magnesium	7439-95-4	1	mg/L		----	80	----	----	----
Sodium	7440-23-5	1	mg/L		----	504	----	----	----
Potassium	7440-09-7	1	mg/L		----	2	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	<0.01	----	----	----
Manganese	7439-96-5	0.001	mg/L		----	0.862	----	----	----
Iron	7439-89-6	0.05	mg/L		----	5.36	----	----	----
Bromine	7726-95-6	0.1	mg/L		----	2.1	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	0.17	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	<0.01	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	<0.01	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	<0.01	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	0.42	----	----	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	29.3	----	----	----
ø Total Cations	----	0.01	meq/L		----	34.8	----	----	----
ø Ionic Balance	----	0.01	%		----	8.71	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW110_211122	0902_MW022_211122	0902_QC100_211122	0902_QC101_211122	0902_QC102_211123
				Sampling date / time	22-Nov-2021 09:37	22-Nov-2021 08:56	22-Nov-2021 08:24	22-Nov-2021 11:19	23-Nov-2021 09:15
Compound	CAS Number	LOR	Unit		ES2142389-026	ES2142389-027	ES2142389-028	ES2142389-029	ES2142389-030
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.63**	**0.66**	**0.49**	**0.05**	**0.22**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.44**	**0.61**	**0.39**	**0.04**	**0.15**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**2.36**	**5.08**	**2.76**	**0.25**	**0.77**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.04**	**0.33**	**0.18**	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.10**	**5.60**	**3.21**	**0.01**	**0.06**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.2**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.10**	**0.24**	**0.12**	<0.02	**0.02**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.60**	**0.94**	**0.68**	<0.02	**0.12**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.06**	**0.18**	**0.10**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.05**	**0.37**	**0.19**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.05**	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW110_211122	0902_MW022_211122	0902_QC100_211122	0902_QC101_211122	0902_QC102_211123
				Sampling date / time	22-Nov-2021 09:37	22-Nov-2021 08:56	22-Nov-2021 08:24	22-Nov-2021 11:19	23-Nov-2021 09:15
Compound	CAS Number	LOR	Unit		ES2142389-026	ES2142389-027	ES2142389-028	ES2142389-029	ES2142389-030
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	**0.06**	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**4.38**	**14.3**	**8.12**	**0.35**	**1.34**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**2.46**	**10.7**	**5.97**	**0.26**	**0.83**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**3.90**	**13.3**	**7.55**	**0.31**	**1.19**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**86.9**	**92.7**	**82.5**	**88.6**	**90.1**
13C8-PFOA	----	0.02	%		**95.6**	**92.3**	**92.1**	**94.0**	**95.6**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC103_211123	----	----	----	----
				Sampling date / time	23-Nov-2021 11:41	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2142389-031	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**10.1**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**11.0**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**70.4**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**5.00**	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**129**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		**0.68**	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**2.0**	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**4.20**	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**19.2**	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**1.97**	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**3.98**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		**0.09**	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		**0.03**	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		**0.03**	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		**0.02**	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		**0.31**	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC103_211123	----	----	----	----
				Sampling date / time	23-Nov-2021 11:41	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2142389-031	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		**0.20**	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		**0.07**	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**258**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**199**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**241**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**65.1**	----	----	----	----
13C8-PFOA	----	0.02	%		**93.9**	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_MW043_211123	----	----	----	----
				Sampling date / time	23-Nov-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2142389-032	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.08**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.01**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_MW043_211123	----	----	----	----
				Sampling date / time	23-Nov-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2142389-032	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.11**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.03**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.11**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**89.2**	----	----	----	----
13C8-PFOA	----	0.02	%		**98.3**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2142389**	Page	: 1 of 13
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 23-Nov-2021
Order number	: 60612562_5.1	Date Analysis Commenced	: 24-Nov-2021
C-O-C number	: 30538	Issue Date	: 01-Dec-2021
Sampler	: ANDREW SPOOR, AYRTON DONEGAN		
Site	: Richmond		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 32		
No. of samples analysed	: 32		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED037P: Alkalinity by PC Titrator (QC Lot: 4037386)									
ES2142283-008	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	62	62	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	62	62	0.0	0% - 20%
ES2142202-015	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	<1	<1	0.0	No Limit
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4032770)									
ES2141869-003	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	8	9	13.0	No Limit
ES2142349-022	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	999	1060	5.5	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4034585)									
ES2142389-004	0902_MW010_211123	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	19	19	0.0	0% - 50%
EW2104995-009	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	6	6	0.0	No Limit
ED045G: Chloride by Discrete Analyser (QC Lot: 4032769)									
ES2142354-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	68	66	3.0	0% - 20%
ES2141869-003	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	55	56	0.0	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 4034584)									
ES2142389-004	0902_MW010_211123	ED045G: Chloride	16887-00-6	1	mg/L	303	304	0.4	0% - 20%
EW2104995-009	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	32	32	0.0	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 4038476)									
ES2142283-001	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	14	14	0.0	0% - 50%
		ED093F: Magnesium	7439-95-4	1	mg/L	5	4	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED093F: Dissolved Major Cations (QC Lot: 4038476) - continued									
ES2142283-001	Anonymous	ED093F: Sodium	7440-23-5	1	mg/L	5	4	41.1	No Limit
		ED093F: Potassium	7440-09-7	1	mg/L	2	2	0.0	No Limit
ES2142561-006	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	668	659	1.3	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	2360	2370	0.5	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	20800	20600	0.9	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	696	694	0.3	0% - 20%
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4038473)									
EP2114191-001	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.010	<0.010	0.0	No Limit
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.10	<0.10	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.10	<0.10	0.0	No Limit
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	64.1	66.1	3.1	0% - 20%
ES2142561-006	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.090	0.090	0.0	No Limit
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.10	<0.10	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.10	<0.10	0.0	No Limit
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	121	123	1.5	0% - 20%
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 4038309)									
ES2142389-027	0902_MW022_211122	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.17	0.16	0.0	0% - 50%
ES2142704-008	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.08	0.07	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4032771)									
ES2142280-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2142349-022	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	0.26	0.26	0.0	0% - 20%
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4034583)									
ES2142435-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2142389-004	0902_MW010_211123	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4038308)									
EM2123405-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.12	0.12	0.0	0% - 50%
ES2142317-005	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.65	0.66	0.0	0% - 20%
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4038310)									
ES2142389-027	0902_MW022_211122	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2142704-008	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4038313)									
ES2142389-004	0902_MW010_211123	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.66	0.62	7.3	0% - 20%
ES2142704-009	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.05	<0.05	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4037952)									
ES2142389-001	0902_MW007_211123	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.05	0.06	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4037952) - continued									
ES2142389-001	0902_MW007_211123	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2142389-011	0902_MW041_211123	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.08	0.07	18.6	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.05	0.04	26.6	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4038542)									
ES2142389-021	0902_MW069_211123	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.28	0.33	16.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.36	0.42	16.7	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.08	0.09	12.7	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.03	0.04	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2142389-031	0902_QC103_211123	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	70.4	58.7	18.2	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	129	109	16.5	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	10.1	8.67	15.2	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	11.0	10.4	5.3	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	5.00	4.35	13.7	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	0.68	0.67	2.7	0% - 20%
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4037952)									
ES2142389-001	0902_MW007_211123	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2142389-011	0902_MW041_211123	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4037952) - continued									
ES2142389-011	0902_MW041_211123	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4038542)									
ES2142389-021	0902_MW069_211123	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.05	0.06	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2142389-031	0902_QC103_211123	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	3.98	3.56	11.3	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	4.20	3.60	15.3	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	19.2	17.2	11.3	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	1.97	1.65	17.8	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.09	0.12	24.9	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	0.03	0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	2.0	1.8	14.3	0% - 20%
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4037952)									
ES2142389-001	0902_MW007_211123	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4037952) - continued									
ES2142389-011	0902_MW041_211123	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4038542)									
ES2142389-021	0902_MW069_211123	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2142389-031	0902_QC103_211123	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	0.31	0.28	11.4	0% - 50%
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4037952)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4037952) - continued									
ES2142389-001	0902_MW007_211123	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2142389-011	0902_MW041_211123	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4038542)									
ES2142389-021	0902_MW069_211123	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2142389-031	0902_QC103_211123	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	0.20	0.17	15.5	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	0.07	0.06	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4037952)									
ES2142389-001	0902_MW007_211123	EP231X: Sum of PFAS	----	0.01	µg/L	0.07	0.08	13.3	No Limit
ES2142389-011	0902_MW041_211123	EP231X: Sum of PFAS	----	0.01	µg/L	0.13	0.11	16.7	0% - 50%
EP231P: PFAS Sums (QC Lot: 4038542)									
ES2142389-021	0902_MW069_211123	EP231X: Sum of PFAS	----	0.01	µg/L	0.83	0.97	15.6	0% - 20%
ES2142389-031	0902_QC103_211123	EP231X: Sum of PFAS	----	0.01	µg/L	258	220	15.9	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
ED037P: Alkalinity by PC Titrator (QCLot: 4037386)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	102	81.0	111
				----	50 mg/L	106	80.0	120
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4032770)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	104	82.0	122
				<1	500 mg/L	103	82.0	122
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4034585)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	92.3	82.0	122
				<1	500 mg/L	103	82.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 4032769)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	99.0	80.9	127
				<1	1000 mg/L	97.1	80.9	127
ED045G: Chloride by Discrete Analyser (QCLot: 4034584)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	100	80.9	127
				<1	1000 mg/L	104	80.9	127
ED093F: Dissolved Major Cations (QCLot: 4038476)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	110	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	100	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	98.3	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	97.0	85.0	113
EG020F: Dissolved Metals by ICP-MS (QCLot: 4038473)								
EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	94.0	80.0	116
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	93.3	82.0	110
EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	97.8	82.0	112
EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4038309)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	101	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4032771)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	103	82.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4034583)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	104	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4038308)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	99.6	91.0	113
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4038310)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4038310) - continued								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	101	91.0	113
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4038313)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	92.0	71.0	101
				<0.01	0.442 mg/L	101	72.0	108
				<0.01	1 mg/L	104	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4037952)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	80.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	76.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	80.2	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	79.2	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	78.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4038542)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	99.0	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	93.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	87.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	83.4	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	74.4	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	94.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4037952)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	78.8	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	81.0	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	92.6	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	89.6	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	85.0	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	84.2	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	79.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	79.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	88.8	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4038542)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	78.4	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	83.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	108	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	108	69.0	130

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4038542) - continued								
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	99.8	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	94.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	81.6	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	112	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4037952)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	81.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	78.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	79.5	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	78.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	86.5	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	76.8	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	85.4	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4038542)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	94.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	79.2	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	93.8	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	95.6	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	88.6	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	105	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	110	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4037952)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	76.2	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	91.8	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	94.2	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	78.8	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4038542)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	92.6	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	99.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	106	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	99.8	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4032770)							
ES2141869-003	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	50 mg/L	129	70.0	130
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4034585)							
ES2142389-004	0902_MW010_211123	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	10 mg/L	98.6	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4032769)							
ES2141869-003	Anonymous	ED045G: Chloride	16887-00-6	50 mg/L	112	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4034584)							
ES2142389-004	0902_MW010_211123	ED045G: Chloride	16887-00-6	50 mg/L	# Not Determined	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 4038473)							
ES2142389-004	0902_MW010_211123	EG020A-F: Manganese	7439-96-5	1 mg/L	92.4	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4038309)							
ES2142389-027	0902_MW022_211122	EK055G: Ammonia as N	7664-41-7	1 mg/L	84.7	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4032771)							
ES2142280-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	109	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4034583)							
ES2142389-004	0902_MW010_211123	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	111	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4038308)							
EM2123405-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	89.5	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4038310)							
ES2142389-027	0902_MW022_211122	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	87.3	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4038313)							
ES2142704-010	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	111	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4037952)							
ES2142389-002	0902_MW008_211123	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	127	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	97.6	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	83.2	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	78.6	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	76.4	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	72.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4038542)							

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4038542) - continued							
ES2142389-022	0902_MW070_211122	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	106	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	100	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	# Not Determined	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	97.2	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	66.2	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	93.4	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4037952)							
ES2142389-002	0902_MW008_211123	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	76.2	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	115	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	107	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	93.6	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	98.6	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	95.0	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	88.6	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	88.6	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	90.2	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	82.0	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	96.3	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4038542)							
ES2142389-022	0902_MW070_211122	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	85.6	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	85.6	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	120	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	107	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	117	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	118	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	104	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	103	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	110	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	96.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	127	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4037952)							
ES2142389-002	0902_MW008_211123	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	90.2	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	74.8	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	77.3	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	91.8	66.0	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4037952) - continued							
ES2142389-002	0902_MW008_211123	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	72.6	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	91.6	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	89.4	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4038542)							
ES2142389-022	0902_MW070_211122	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	95.0	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	83.2	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	103	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	101	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	82.0	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	105	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	109	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4037952)							
ES2142389-002	0902_MW008_211123	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	77.6	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	105	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	99.0	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	86.2	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4038542)							
ES2142389-022	0902_MW070_211122	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	91.4	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	109	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	104	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	88.6	71.4	144

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2142389**	Page	: 1 of 10
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 23-Nov-2021
Site	: Richmond	Issue Date	: 01-Dec-2021
Sampler	: ANDREW SPOOR, AYRTON DONEGAN	No. of samples received	: 32
Order number	: 60612562_5.1	No. of samples analysed	: 32

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
ED045G: Chloride by Discrete Analyser	ES2142389--004	0902_MW010_211123	**Chloride**	16887-00-6	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2142389--022	0902_MW070_211122	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container* / Client Sample ID(s)	*Sample Date*	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
ED037P: Alkalinity by PC Titrator							
Clear Plastic Bottle - Natural (ED037-P) 0902_MW022_211122	**22-Nov-2021**	**----**	----	----	**25-Nov-2021**	06-Dec-2021	✓
Clear Plastic Bottle - Natural (ED037-P) 0902_MW010_211123	**23-Nov-2021**	**----**	----	----	**25-Nov-2021**	07-Dec-2021	✓
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA							
Clear Plastic Bottle - Natural (ED041G) 0902_MW022_211122	**22-Nov-2021**	**----**	----	----	**24-Nov-2021**	20-Dec-2021	✓
Clear Plastic Bottle - Natural (ED041G) 0902_MW010_211123	**23-Nov-2021**	**----**	----	----	**24-Nov-2021**	21-Dec-2021	✓
ED045G: Chloride by Discrete Analyser							
Clear Plastic Bottle - Natural (ED045G) 0902_MW022_211122	**22-Nov-2021**	**----**	----	----	**24-Nov-2021**	20-Dec-2021	✓
Clear Plastic Bottle - Natural (ED045G) 0902_MW010_211123	**23-Nov-2021**	**----**	----	----	**24-Nov-2021**	21-Dec-2021	✓
ED093F: Dissolved Major Cations							
Clear Plastic Bottle - Nitric Acid; Filtered (ED093F) 0902_MW022_211122	**22-Nov-2021**	**----**	----	----	**26-Nov-2021**	20-Dec-2021	✓
Clear Plastic Bottle - Nitric Acid; Filtered (ED093F) 0902_MW010_211123	**23-Nov-2021**	**----**	----	----	**26-Nov-2021**	21-Dec-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
0902_MW022_211122	**22-Nov-2021**	**----**	----	----	**26-Nov-2021**	21-May-2022	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
0902_MW010_211123	**23-Nov-2021**	**----**	----	----	**26-Nov-2021**	22-May-2022	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_MW022_211122	**22-Nov-2021**	**----**	----	----	**26-Nov-2021**	20-Dec-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_MW010_211123	**23-Nov-2021**	**----**	----	----	**26-Nov-2021**	21-Dec-2021	✓
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G)							
0902_MW022_211122	**22-Nov-2021**	**----**	----	----	**24-Nov-2021**	24-Nov-2021	✓
Clear Plastic Bottle - Natural (EK057G)							
0902_MW010_211123	**23-Nov-2021**	**----**	----	----	**24-Nov-2021**	25-Nov-2021	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW022_211122	**22-Nov-2021**	**----**	----	----	**26-Nov-2021**	20-Dec-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW010_211123	**23-Nov-2021**	**----**	----	----	**26-Nov-2021**	21-Dec-2021	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_MW022_211122	**22-Nov-2021**	**26-Nov-2021**	20-Dec-2021	✓	**26-Nov-2021**	20-Dec-2021	✓
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_MW010_211123	**23-Nov-2021**	**26-Nov-2021**	21-Dec-2021	✓	**26-Nov-2021**	21-Dec-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW023_211122, 0902_MW025_211122, 0902_MW026_211122, 0902_MW036_211122, 0902_MW046_211122, 0902_MW062_211122, 0902_MW063_211122, 0902_MW065_211122, 0902_MW066_211122, 0902_MW064_211122, 0902_MW067_211122, 0902_MW070_211122, 0902_MW071_211122, 0902_MW086_211122, 0902_MW109_211122, 0902_MW110_211122, 0902_MW022_211122, 0902_QC100_211122, 0902_QC101_211122	**22-Nov-2021**	**26-Nov-2021**	21-May-2022	✓	**29-Nov-2021**	21-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW007_211123, 0902_MW008_211123, 0902_MW009_211123, 0902_MW010_211123, 0902_MW028_211123, 0902_MW040_211123, 0902_MW041_211123, 0902_MW042_211123, 0902_MW068_211123, 0902_MW069_211123, 0902_QC102_211123, 0902_QC103_211123, 0902_MW043_211123	**23-Nov-2021**	**26-Nov-2021**	22-May-2022	✓	**29-Nov-2021**	22-May-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW023_211122, 0902_MW025_211122, 0902_MW026_211122, 0902_MW036_211122, 0902_MW046_211122, 0902_MW062_211122, 0902_MW063_211122, 0902_MW065_211122, 0902_MW066_211122, 0902_MW064_211122, 0902_MW067_211122, 0902_MW070_211122, 0902_MW071_211122, 0902_MW086_211122, 0902_MW109_211122, 0902_MW110_211122, 0902_MW022_211122, 0902_QC100_211122, 0902_QC101_211122	**22-Nov-2021**	**26-Nov-2021**	21-May-2022	✓	**29-Nov-2021**	21-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW007_211123, 0902_MW008_211123, 0902_MW009_211123, 0902_MW010_211123, 0902_MW028_211123, 0902_MW040_211123, 0902_MW041_211123, 0902_MW042_211123, 0902_MW068_211123, 0902_MW069_211123, 0902_QC102_211123, 0902_QC103_211123, 0902_MW043_211123	**23-Nov-2021**	**26-Nov-2021**	22-May-2022	✓	**29-Nov-2021**	22-May-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0902_MW023_211122, 0902_MW025_211122, 0902_MW026_211122, 0902_MW036_211122, 0902_MW046_211122, 0902_MW062_211122, 0902_MW063_211122, 0902_MW065_211122, 0902_MW066_211122, 0902_MW064_211122, 0902_MW067_211122, 0902_MW070_211122, 0902_MW071_211122, 0902_MW086_211122, 0902_MW109_211122, 0902_MW110_211122, 0902_MW022_211122, 0902_QC100_211122, 0902_QC101_211122	**22-Nov-2021**	**26-Nov-2021**	21-May-2022	✓	**29-Nov-2021**	21-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW007_211123, 0902_MW008_211123, 0902_MW009_211123, 0902_MW010_211123, 0902_MW028_211123, 0902_MW040_211123, 0902_MW041_211123, 0902_MW042_211123, 0902_MW068_211123, 0902_MW069_211123, 0902_QC102_211123, 0902_QC103_211123, 0902_MW043_211123	**23-Nov-2021**	**26-Nov-2021**	22-May-2022	✓	**29-Nov-2021**	22-May-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW023_211122, 0902_MW025_211122, 0902_MW026_211122, 0902_MW036_211122, 0902_MW046_211122, 0902_MW062_211122, 0902_MW063_211122, 0902_MW065_211122, 0902_MW066_211122, 0902_MW064_211122, 0902_MW067_211122, 0902_MW070_211122, 0902_MW071_211122, 0902_MW086_211122, 0902_MW109_211122, 0902_MW110_211122, 0902_MW022_211122, 0902_QC100_211122, 0902_QC101_211122	**22-Nov-2021**	**26-Nov-2021**	21-May-2022	✓	**29-Nov-2021**	21-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW007_211123, 0902_MW008_211123, 0902_MW009_211123, 0902_MW010_211123, 0902_MW028_211123, 0902_MW040_211123, 0902_MW041_211123, 0902_MW042_211123, 0902_MW068_211123, 0902_MW069_211123, 0902_QC102_211123, 0902_QC103_211123, 0902_MW043_211123	**23-Nov-2021**	**26-Nov-2021**	22-May-2022	✓	**29-Nov-2021**	22-May-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0902_MW023_211122, 0902_MW025_211122, 0902_MW026_211122, 0902_MW036_211122, 0902_MW046_211122, 0902_MW062_211122, 0902_MW063_211122, 0902_MW065_211122, 0902_MW066_211122, 0902_MW064_211122, 0902_MW067_211122, 0902_MW070_211122, 0902_MW071_211122, 0902_MW086_211122, 0902_MW109_211122, 0902_MW110_211122, 0902_MW022_211122, 0902_QC100_211122, 0902_QC101_211122	**22-Nov-2021**	**26-Nov-2021**	21-May-2022	✓	**29-Nov-2021**	21-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW007_211123, 0902_MW008_211123, 0902_MW009_211123, 0902_MW010_211123, 0902_MW028_211123, 0902_MW040_211123, 0902_MW041_211123, 0902_MW042_211123, 0902_MW068_211123, 0902_MW069_211123, 0902_QC102_211123, 0902_QC103_211123, 0902_MW043_211123	**23-Nov-2021**	**26-Nov-2021**	22-May-2022	✓	**29-Nov-2021**	22-May-2022	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Alkalinity by PC Titrator	ED037-P	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	5	**40.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	4	34	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	35	**11.43**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by PC Titrator	ED037-P	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	34	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	35	**5.71**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	4	40	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	18	**16.67**	**15.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	34	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	35	**5.71**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	34	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Matrix Spikes (MS) - Continued							
Nitrite as N by Discrete Analyser	EK057G	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	35	**5.71**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Alkalinity by PC Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. PC Titrate) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G.The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride.in the presence of ferric ions the librated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm APHA seal method 2 017-1-L
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030F. This method is compliant with NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

CHAIN OF CUSTODY

COC#: 30771 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/11/21 4PM	DATE TIME:	DATE TIME: 26/11/21 1830

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal Intact? (Yes) No N/A

(Free ice) / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW004_211125		25/11/2021 03:48 PM	Water	ALS: 4 Non ALS: 0	No		X			
002	0902_MW005_211125		25/11/2021 03:11 PM	Water	ALS: 4 Non ALS: 0	No		X			
003	0902_MW020_211124		24/11/2021 12:09 PM	Water	ALS: 4 Non ALS: 0	No		X			
004	0902_MW021_211124		24/11/2021 10:33 AM	Water	ALS: 4 Non ALS: 0	No		X			
005	0902_MW024_211123		23/11/2021 03:06 PM	Water	ALS: 4 Non ALS: 0	No		X			
006	0902_MW027_211123		23/11/2021 01:44 PM	Water	ALS: 4 Non ALS: 0	No		X			
007	0902_MW032_211124		24/11/2021 02:01 PM	Water	ALS: 4 Non ALS: 0	No		X			
008	0902_MW033_211124		24/11/2021 02:10 PM	Water	ALS: 4 Non ALS: 0	No		X			
009	0902_MW034_211124		24/11/2021 01:50 PM	Water	ALS: 4 Non ALS: 0	No		X			

Environmental Division Sydney

Work Order Reference

ES2143118

Telephone : +61-2-8784 8555

CHAIN OF CUSTODY

COC#: 30771 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/11/21 4pm	DATE TIME:	DATE TIME: 26/11/21 1830

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal Intact?	(Yes)	No	N/A
Free ice / frozen ice bricks present upon receipt?	(Yes)	No	N/A
Random Sample Temperature on Receipt:	4 °C		
Other comments:			

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_MW043_211123		23/11/2021 10:40 AM	Water	ALS: 2 Non ALS: 0	No		X			
011	0902_MW047_211123		23/11/2021 02:03 PM	Water	ALS: 4 Non ALS: 0	No		X			
012	0902_MW048_211123		23/11/2021 01:55 PM	Water	ALS: 4 Non ALS: 0	No		X			
013	0902_MW050_211123		23/11/2021 02:38 PM	Water	ALS: 4 Non ALS: 0	No		X			
014	0902_MW051_211123		23/11/2021 02:19 PM	Water	ALS: 4 Non ALS: 0	No		X			
015	0902_MW052_211123		23/11/2021 02:11 PM	Water	ALS: 4 Non ALS: 0	No		X			
016	0902_MW053_211124		24/11/2021 09:15 AM	Water	ALS: 4 Non ALS: 0	No		X			
017	0902_MW054_211124		24/11/2021 08:33 AM	Water	ALS: 4 Non ALS: 0	No		X			
018	0902_MW056_211124		24/11/2021 09:00 AM	Water	ALS: 4 Non ALS: 0	No		X			

CHAIN OF CUSTODY

COC#: 30771 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Juliana G DATE TIME: 26/11/21 4:00	DATE TIME:	DATE TIME: 26/11/21 1830

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 4. °C

Other comments:

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0902_MW057_211124		24/11/2021 08:14 AM	Water	ALS: 4 Non ALS: 0	No		X			
020	0902_MW058_211124		24/11/2021 08:47 AM	Water	ALS: 4 Non ALS: 0	No		X			
021	0902_MW060_211124		24/11/2021 03:26 PM	Water	ALS: 4 Non ALS: 0	No		X			
022	0902_MW061_211124		24/11/2021 03:38 PM	Water	ALS: 4 Non ALS: 0	No		X			
023	0902_MW072_211124		24/11/2021 03:08 PM	Water	ALS: 4 Non ALS: 0	No		X			
024	0902_MW073_211124		24/11/2021 02:23 PM	Water	ALS: 4 Non ALS: 0	No		X			
025	0902_MW074_211124		24/11/2021 02:41 PM	Water	ALS: 4 Non ALS: 0	No		X			
026	0902_MW075_211125		25/11/2021 09:37 AM	Water	ALS: 7 Non ALS: 0	No		X	X	please include NT-01 & 02	
027	0902_MW076_211125		25/11/2021 09:09 AM	Water	ALS: 4 Non ALS: 0	No		X			

CHAIN OF CUSTODY

(ALS) COC#: 30771 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	**RECEIVED BY:**	**RELINQUISHED BY:**	**RECEIVED BY:**
DATE TIME:	DATE TIME: 26/11/21 4pm	DATE TIME:	DATE TIME: 26/11/21 1830

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins.

PRIMARY SAMPLER: Ayrton Donegan

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU002 7

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
028	0902_MW077_211125		25/11/2021 09:22 AM	Water	ALS: 4 Non ALS: 0	No		X			
029	0902_MW078_211125		25/11/2021 09:56 AM	Water	ALS: 4 Non ALS: 0	No		X			
030	0902_MW079_211124		24/11/2021 04:43 PM	Water	ALS: 4 Non ALS: 0	No		X			
031	0902_MW080_211124		24/11/2021 04:26 PM	Water	ALS: 4 Non ALS: 0	No		X			
032	0902_MW082_211125		25/11/2021 10:20 AM	Water	ALS: 7 Non ALS: 0	No		X	X	please include NT-01 & 02	
033	0902_MW091_211125		25/11/2021 10:58 AM	Water	ALS: 7 Non ALS: 0	No		X	X	please include NT-01 & 02	
034	0902_MW092_211125		25/11/2021 11:26 AM	Water	ALS: 7 Non ALS: 0	No		X			
035	0902_MW106_211124		24/11/2021 04:25 PM	Water	ALS: 4 Non ALS: 0	No		X			
036	0902_MW107D_211123		23/11/2021 03:55 PM	Water	ALS: 4 Non ALS: 0	No		X			

CHAIN OF CUSTODY

(ALS) COC#: 30771 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/11/21 4pm	DATE TIME:	DATE TIME: 26/11/21 1830

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU002 7

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal Intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
037	0902_MW107I_211123		23/11/2021 03:33 PM	Water	ALS: 4 Non ALS: 0	No		X			
038	0902_MW108_211123		23/11/2021 04:42 PM	Water	ALS: 4 Non ALS: 0	No		X			
039	0902_MW111_211125		25/11/2021 03:21 PM	Water	ALS: 4 Non ALS: 0	No		X			
040	0902_MW112_211125		25/11/2021 03:41 PM	Water	ALS: 4 Non ALS: 0	No		X			
041	0902_MW117_211125		25/11/2021 12:35 PM	Water	ALS: 4 Non ALS: 0	No		X			
042	0902_MW118_211125		25/11/2021 12:30 PM	Water	ALS: 4 Non ALS: 0	No		X			
043	0902_MW119_21112		25/11/2021 12:45 PM	Water	ALS: 4 Non ALS: 0	No		X			
044	0902_SD005_211125		25/11/2021 04:03 PM	Soil	ALS: 1 Non ALS: 0	No	X				
045	0902_SD014_211125		25/11/2021 02:58 PM	Soil	ALS: 1 Non ALS: 0	No	X				

CHAIN OF CUSTODY

(ALS) COC#: 30771 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/11/21 4pm	DATE TIME:	DATE TIME: 26/11/21 1830

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

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SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
046	0902_SD023_211125		25/11/2021 11:56 AM	Soil	ALS: 1 Non ALS: 0	No	X				
047	0902_SD035_211125		25/11/2021 02:02 PM	Soil	ALS: 1 Non ALS: 0	No	X				
048	0902_SW005_211125		25/11/2021 04:04 PM	Water	ALS: 4 Non ALS: 0	No		X			
049	0902_SW014_211125		25/11/2021 03:00 PM	Water	ALS: 4 Non ALS: 0	No		X			
050	0902_SW023_211125		25/11/2021 11:55 AM	Water	ALS: 7 Non ALS: 0	No		X	X	please include NT-01 & 02	
051	0902_SW030_21112		23/11/2021 05:22 PM	Water	ALS: 4 Non ALS: 0	No		X			
052	0902_SW035_211125		25/11/2021 02:03 PM	Water	ALS: 7 Non ALS: 0	No		X	X	please include NT-01 & 02	
053	0902_QC104_211123		23/11/2021 03:34 PM	Water	ALS: 4 Non ALS: 0	No		X			
054	0902_QC105_211123		23/11/2021 04:43 PM	Water	ALS: 4 Non ALS: 0	No		X			

CHAIN OF CUSTODY

(ALS) COC#: 30771 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/11/21 4PM	DATE TIME:	DATE TIME: 26/11/21 1830

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

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PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal Intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

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SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
055	0902_QC300_211122		23/11/2021 05:27 PM	Water	ALS: 5 Non ALS: 0	No		X	X	just for PFAS and Metals	
056	0902_QC301_211123		23/11/2021 05:32 PM	Water	ALS: 5 Non ALS: 0	No		X	X	just for PFAS and Metals	
057	0902_QC106_211124		24/11/2021 09:01 AM	Water	ALS: 4 Non ALS: 0	No		X			
058	0902_QC109_211125		25/11/2021 12:03 PM	Soil	ALS: 1 Non ALS: 0	No	X				
059	0902_QC107_211124		24/11/2021 04:24 PM	Water	ALS: 4 Non ALS: 0	No		X			
060	0902_QC302_211124		25/11/2021 08:12 PM	Water	ALS: 5 Non ALS: 0	No		X	X	just for PFAS and Metals	
061	0902_QC108_211125		25/11/2021 12:03 PM	Water	ALS: 7 Non ALS: 0	No		X	X	please include NT-01 & 02	
062	0902_QC303_211125		25/11/2021 05:15 PM	Water	ALS: 5 Non ALS: 0	No		X	X	just for PFAS and Metals	
063	0902_QC304_211126		26/11/2021 02:09 PM	Water	ALS: 5 Non ALS: 0	No		X	X	just for PFAS and Metals	

CHAIN OF CUSTODY

ALS COC#: 30771 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/11/21 4pm	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

LABORATORY USE ONLY (Circle)

Custody Seal Intact? (Yes) No N/A

Free Ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW004_211125	HDPE (no PTFE)	20 mL	00350621064154	Grey	No	
001	0902_MW004_211125	HDPE (no PTFE)	20 mL	00350621064082	Grey	No	
001	0902_MW004_211125	HDPE (no PTFE)	20 mL	00350621064129	Grey	No	
001	0902_MW004_211125	HDPE (no PTFE)	20 mL	00350621064080	Grey	No	
002	0902_MW005_211125	HDPE (no PTFE)	20 mL	00350621064353	Grey	No	
002	0902_MW005_211125	HDPE (no PTFE)	20 mL	00350621064171	Grey	No	
002	0902_MW005_211125	HDPE (no PTFE)	20 mL	00350621041534	Grey	No	
002	0902_MW005_211125	HDPE (no PTFE)	20 mL	00350621041527	Grey	No	
003	0902_MW020_211124	HDPE (no PTFE)	20 mL	00350621041645	Grey	No	
003	0902_MW020_211124	HDPE (no PTFE)	20 mL	00350621041537	Grey	No	
003	0902_MW020_211124	HDPE (no PTFE)	20 mL	00350621041549	Grey	No	
003	0902_MW020_211124	HDPE (no PTFE)	20 mL	00350621041568	Grey	No	
004	0902_MW021_211124	HDPE (no PTFE)	20 mL	00350621041723	Grey	No	
004	0902_MW021_211124	HDPE (no PTFE)	20 mL	00350621041671	Grey	No	
004	0902_MW021_211124	HDPE (no PTFE)	20 mL	00350621041756	Grey	No	
004	0902_MW021_211124	HDPE (no PTFE)	20 mL	00350621041624	Grey	No	
005	0902_MW024_211123	HDPE (no PTFE)	20 mL	00350621041766	Grey	No	
005	0902_MW024_211123	HDPE (no PTFE)	20 mL	00350621041658	Grey	No	
005	0902_MW024_211123	HDPE (no PTFE)	20 mL	00350621041572	Grey	No	
005	0902_MW024_211123	HDPE (no PTFE)	20 mL	00350621041656	Grey	No	
006	0902_MW027_211123	HDPE (no PTFE)	20 mL	00350621061713	Grey	No	
006	0902_MW027_211123	HDPE (no PTFE)	20 mL	00350621061455	Grey	No	
006	0902_MW027_211123	HDPE (no PTFE)	20 mL	00350621061627	Grey	No	
006	0902_MW027_211123	HDPE (no PTFE)	20 mL	00350621061535	Grey	No	
007	0902_MW032_211124	HDPE (no PTFE)	20 mL	00350621041516	Grey	No	
007	0902_MW032_211124	HDPE (no PTFE)	20 mL	00350621041547	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 30771 ALS Laboratory: ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

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PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

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QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/11/21 4pm	DATE TIME:	DATE TIME: 26/11/21/830

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

007	0902_MW032_211124	HDPE (no PTFE)	20 mL	00350621041618	Grey	No	
007	0902_MW032_211124	HDPE (no PTFE)	20 mL	00350621041554	Grey	No	
008	0902_MW033_211124	HDPE (no PTFE)	20 mL	00350621041714	Grey	No	
008	0902_MW033_211124	HDPE (no PTFE)	20 mL	00350621041695	Grey	No	
008	0902_MW033_211124	HDPE (no PTFE)	20 mL	00350621041728	Grey	No	
008	0902_MW033_211124	HDPE (no PTFE)	20 mL	00350621041577	Grey	No	
009	0902_MW034_211124	HDPE (no PTFE)	20 mL	00350621041497	Grey	No	
009	0902_MW034_211124	HDPE (no PTFE)	20 mL	00350621041676	Grey	No	
009	0902_MW034_211124	HDPE (no PTFE)	20 mL	00350621041681	Grey	No	
009	0902_MW034_211124	HDPE (no PTFE)	20 mL	00350621041733	Grey	No	
010	0902_MW043_211123	HDPE (no PTFE)	20 mL	00350621041612	Grey	No	
010	0902_MW043_211123	HDPE (no PTFE)	20 mL	00350621041636	Grey	No	
011	0902_MW047_211123	HDPE (no PTFE)	20 mL	00350621041678	Grey	No	
011	0902_MW047_211123	HDPE (no PTFE)	20 mL	00350621041768	Grey	No	
011	0902_MW047_211123	HDPE (no PTFE)	20 mL	00350621061423	Grey	No	
011	0902_MW047_211123	HDPE (no PTFE)	20 mL	00350621061429	Grey	No	
012	0902_MW048_211123	HDPE (no PTFE)	20 mL	00350621061590	Grey	No	
012	0902_MW048_211123	HDPE (no PTFE)	20 mL	00350621061433	Grey	No	
012	0902_MW048_211123	HDPE (no PTFE)	20 mL	00350621061439	Grey	No	
012	0902_MW048_211123	HDPE (no PTFE)	20 mL	00350621061542	Grey	No	
013	0902_MW050_211123	HDPE (no PTFE)	20 mL	00350621041564	Grey	No	
013	0902_MW050_211123	HDPE (no PTFE)	20 mL	00350621041698	Grey	No	
013	0902_MW050_211123	HDPE (no PTFE)	20 mL	00350621041593	Grey	No	
013	0902_MW050_211123	HDPE (no PTFE)	20 mL	00350621041693	Grey	No	
014	0902_MW051_211123	HDPE (no PTFE)	20 mL	00350621041684	Grey	No	
014	0902_MW051_211123	HDPE (no PTFE)	20 mL	00350621041506	Grey	No	
014	0902_MW051_211123	HDPE (no PTFE)	20 mL	00350621041598	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 30771 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/11/21 4PM	DATE TIME:	DATE TIME: 26/11/21 1830

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

014	0902_MW051_211123	HDPE (no PTFE)	20 mL	00350621041583	Grey	No	
015	0902_MW052_211123	HDPE (no PTFE)	20 mL	00350621041776	Grey	No	
015	0902_MW052_211123	HDPE (no PTFE)	20 mL	00350621041682	Grey	No	
015	0902_MW052_211123	HDPE (no PTFE)	20 mL	00350621041701	Grey	No	
015	0902_MW052_211123	HDPE (no PTFE)	20 mL	00350621041607	Grey	No	
016	0902_MW053_211124	HDPE (no PTFE)	20 mL	00350621041613	Grey	No	
016	0902_MW053_211124	HDPE (no PTFE)	20 mL	00350621041642	Grey	No	
016	0902_MW053_211124	HDPE (no PTFE)	20 mL	00350621041764	Grey	No	
016	0902_MW053_211124	HDPE (no PTFE)	20 mL	00350621041697	Grey	No	
017	0902_MW054_211124	HDPE (no PTFE)	20 mL	00350621061456	Grey	No	
017	0902_MW054_211124	HDPE (no PTFE)	20 mL	00350621061419	Grey	No	
017	0902_MW054_211124	HDPE (no PTFE)	20 mL	00350621061616	Grey	No	
017	0902_MW054_211124	HDPE (no PTFE)	20 mL	00350621061524	Grey	No	
018	0902_MW056_211124	HDPE (no PTFE)	20 mL	00350621041706	Grey	No	
018	0902_MW056_211124	HDPE (no PTFE)	20 mL	00350621041712	Grey	No	
018	0902_MW056_211124	HDPE (no PTFE)	20 mL	00350621041633	Grey	No	
018	0902_MW056_211124	HDPE (no PTFE)	20 mL	00350621041665	Grey	No	
019	0902_MW057_211124	HDPE (no PTFE)	20 mL	00350621061481	Grey	No	
019	0902_MW057_211124	HDPE (no PTFE)	20 mL	00350621061438	Grey	No	
019	0902_MW057_211124	HDPE (no PTFE)	20 mL	00350621061437	Grey	No	
019	0902_MW057_211124	HDPE (no PTFE)	20 mL	00350621061663	Grey	No	
020	0902_MW058_211124	HDPE (no PTFE)	20 mL	00350621041791	Grey	No	
020	0902_MW058_211124	HDPE (no PTFE)	20 mL	00350621041720	Grey	No	
020	0902_MW058_211124	HDPE (no PTFE)	20 mL	00350621041533	Grey	No	
020	0902_MW058_211124	HDPE (no PTFE)	20 mL	00350621041715	Grey	No	
021	0902_MW060_211124	HDPE (no PTFE)	20 mL	00350621041691	Grey	No	
021	0902_MW060_211124	HDPE (no PTFE)	20 mL	00350621041609	Grey	No	

CHAIN OF CUSTODY

COC#: 30771 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Juliana-G DATE TIME: 26/11/21 4pm	DATE TIME:	DATE TIME: 26/11/21 1830

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

021	0902_MW060_211124	HDPE (no PTFE)	20 mL	00350621041561	Grey	No	
021	0902_MW060_211124	HDPE (no PTFE)	20 mL	00350621041592	Grey	No	
022	0902_MW061_211124	HDPE (no PTFE)	20 mL	00350621041661	Grey	No	
022	0902_MW061_211124	HDPE (no PTFE)	20 mL	00350621041560	Grey	No	
022	0902_MW061_211124	HDPE (no PTFE)	20 mL	00350621041562	Grey	No	
022	0902_MW061_211124	HDPE (no PTFE)	20 mL	00350621041771	Grey	No	
023	0902_MW072_211124	HDPE (no PTFE)	20 mL	00350621041778	Grey	No	
023	0902_MW072_211124	HDPE (no PTFE)	20 mL	00350621041532	Grey	No	
023	0902_MW072_211124	HDPE (no PTFE)	20 mL	00350621041501	Grey	No	
023	0902_MW072_211124	HDPE (no PTFE)	20 mL	00350621041545	Grey	No	
024	0902_MW073_211124	HDPE (no PTFE)	20 mL	00350621041644	Grey	No	
024	0902_MW073_211124	HDPE (no PTFE)	20 mL	00350621041657	Grey	No	
024	0902_MW073_211124	HDPE (no PTFE)	20 mL	00350621041627	Grey	No	
024	0902_MW073_211124	HDPE (no PTFE)	20 mL	00350621041510	Grey	No	
025	0902_MW074_211124	HDPE (no PTFE)	20 mL	00350621041535	Grey	No	
025	0902_MW074_211124	HDPE (no PTFE)	20 mL	00350621041538	Grey	No	
025	0902_MW074_211124	HDPE (no PTFE)	20 mL	00350621041608	Grey	No	
025	0902_MW074_211124	HDPE (no PTFE)	20 mL	00350621041740	Grey	No	
026	0902_MW075_211125	Clear Plastic Bottle - Natural	500 mL	00070121090763	Green	No	
026	0902_MW075_211125	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020077480	Purple	No	
026	0902_MW075_211125	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019172	Red	Yes	
026	0902_MW075_211125	HDPE (no PTFE)	20 mL	00350621041570	Grey	No	
026	0902_MW075_211125	HDPE (no PTFE)	20 mL	00350621041730	Grey	No	
026	0902_MW075_211125	HDPE (no PTFE)	20 mL	00350621041787	Grey	No	
026	0902_MW075_211125	HDPE (no PTFE)	20 mL	00350621041503	Grey	No	
027	0902_MW076_211125	HDPE (no PTFE)	20 mL	00350621041585	Grey	No	
027	0902_MW076_211125	HDPE (no PTFE)	20 mL	00350621041620	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 30771 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/11/21 4pm	DATE TIME:	DATE TIME: 26/11/21 1830

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal Intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

027	0902_MW076_211125	HDPE (no PTFE)	20 mL	00350621041688	Grey	No	
027	0902_MW076_211125	HDPE (no PTFE)	20 mL	00350621041708	Grey	No	
028	0902_MW077_211125	HDPE (no PTFE)	20 mL	00350621041635	Grey	No	
028	0902_MW077_211125	HDPE (no PTFE)	20 mL	00350621041647	Grey	No	
028	0902_MW077_211125	HDPE (no PTFE)	20 mL	00350621041522	Grey	No	
028	0902_MW077_211125	HDPE (no PTFE)	20 mL	00350621041614	Grey	No	
029	0902_MW078_211125	HDPE (no PTFE)	20 mL	00350621064071	Grey	No	
029	0902_MW078_211125	HDPE (no PTFE)	20 mL	00350621064237	Grey	No	
029	0902_MW078_211125	HDPE (no PTFE)	20 mL	00350621064364	Grey	No	
029	0902_MW078_211125	HDPE (no PTFE)	20 mL	00350621064066	Grey	No	
030	0902_MW079_211124	HDPE (no PTFE)	20 mL	00350621041530	Grey	No	
030	0902_MW079_211124	HDPE (no PTFE)	20 mL	00350621041579	Grey	No	
030	0902_MW079_211124	HDPE (no PTFE)	20 mL	00350621041586	Grey	No	
030	0902_MW079_211124	HDPE (no PTFE)	20 mL	00350621041514	Grey	No	
031	0902_MW080_211124	HDPE (no PTFE)	20 mL	00350621041502	Grey	No	
031	0902_MW080_211124	HDPE (no PTFE)	20 mL	00350621041540	Grey	No	
031	0902_MW080_211124	HDPE (no PTFE)	20 mL	00350621041553	Grey	No	
031	0902_MW080_211124	HDPE (no PTFE)	20 mL	00350621041521	Grey	No	
032	0902_MW082_211125	Clear Plastic Bottle - Natural	500 mL	00070121090772	Green	No	
032	0902_MW082_211125	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020077725	Purple	No	
032	0902_MW082_211125	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019237	Red	Yes	
032	0902_MW082_211125	HDPE (no PTFE)	20 mL	00350621041555	Grey	No	
032	0902_MW082_211125	HDPE (no PTFE)	20 mL	00350621041498	Grey	No	
032	0902_MW082_211125	HDPE (no PTFE)	20 mL	00350621041567	Grey	No	
032	0902_MW082_211125	HDPE (no PTFE)	20 mL	00350621041494	Grey	No	
033	0902_MW091_211125	Clear Plastic Bottle - Natural	500 mL	00070121090821	Green	No	
033	0902_MW091_211125	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821027301	Red	Yes	

CHAIN OF CUSTODY

ALS COC#: 30771 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Juliana 6 DATE TIME: 26/11/21 4pm	DATE TIME:	50 [illegible] DATE TIME: 26/11/21 1830

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments: 4

033	0902_MW091_211125	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100621053125	Purple	No	
033	0902_MW091_211125	HDPE (no PTFE)	20 mL	00350621064176	Grey	No	
033	0902_MW091_211125	HDPE (no PTFE)	20 mL	00350621064240	Grey	No	
033	0902_MW091_211125	HDPE (no PTFE)	20 mL	00350621064074	Grey	No	
033	0902_MW091_211125	HDPE (no PTFE)	20 mL	00350621064081	Grey	No	
034	0902_MW092_211125	Clear Plastic Bottle - Natural	500 mL	00070121090765	Green	No	
034	0902_MW092_211125	HDPE (no PTFE)	20 mL	00350621064251	Grey	No	
034	0902_MW092_211125	HDPE (no PTFE)	20 mL	00350621041727	Grey	No	
034	0902_MW092_211125	HDPE (no PTFE)	20 mL	00350621064356	Grey	No	
034	0902_MW092_211125	HDPE (no PTFE)	20 mL	00350621041793	Grey	No	
034	0902_MW092_211125	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020077595	Purple	No	
034	0902_MW092_211125	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120621019204	Red	Yes	
035	0902_MW106_211124	HDPE (no PTFE)	20 mL	00350621041511	Grey	No	
035	0902_MW106_211124	HDPE (no PTFE)	20 mL	00350621041739	Grey	No	
035	0902_MW106_211124	HDPE (no PTFE)	20 mL	00350621041774	Grey	No	
035	0902_MW106_211124	HDPE (no PTFE)	20 mL	00350621041519	Grey	No	
036	0902_MW107D_211123	HDPE (no PTFE)	20 mL	00350621041573	Grey	No	
036	0902_MW107D_211123	HDPE (no PTFE)	20 mL	00350621041601	Grey	No	
036	0902_MW107D_211123	HDPE (no PTFE)	20 mL	00350621041742	Grey	No	
036	0902_MW107D_211123	HDPE (no PTFE)	20 mL	00350621041517	Grey	No	
037	0902_MW107I_211123	HDPE (no PTFE)	20 mL	00350621041621	Grey	No	
037	0902_MW107I_211123	HDPE (no PTFE)	20 mL	00350621041550	Grey	No	
037	0902_MW107I_211123	HDPE (no PTFE)	20 mL	00350621041566	Grey	No	
037	0902_MW107I_211123	HDPE (no PTFE)	20 mL	00350621041504	Grey	No	
038	0902_MW108_211123	HDPE (no PTFE)	20 mL	00350621061422	Grey	No	
038	0902_MW108_211123	HDPE (no PTFE)	20 mL	00350621061566	Grey	No	
038	0902_MW108_211123	HDPE (no PTFE)	20 mL	00350621061444	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 30771 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/11/21 4 PM	DATE TIME:	DATE TIME: 26/11/21 1830

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

038	0902_MW108_211123	HDPE (no PTFE)	20 mL	00350621061700	Grey	No	
039	0902_MW111_211125	HDPE (no PTFE)	20 mL	00350621041792	Grey	No	
039	0902_MW111_211125	HDPE (no PTFE)	20 mL	00350621041773	Grey	No	
039	0902_MW111_211125	HDPE (no PTFE)	20 mL	00350621064188	Grey	No	
039	0902_MW111_211125	HDPE (no PTFE)	20 mL	00350621064187	Grey	No	
040	0902_MW112_211125	HDPE (no PTFE)	20 mL	00350621064365	Grey	No	
040	0902_MW112_211125	HDPE (no PTFE)	20 mL	00350621064144	Grey	No	
040	0902_MW112_211125	HDPE (no PTFE)	20 mL	00350621064241	Grey	No	
040	0902_MW112_211125	HDPE (no PTFE)	20 mL	00350621064190	Grey	No	
041	0902_MW117_211125	HDPE (no PTFE)	20 mL	00350621038820	Grey	No	
041	0902_MW117_211125	HDPE (no PTFE)	20 mL	00350621065438	Grey	No	
041	0902_MW117_211125	HDPE (no PTFE)	20 mL	00350621038777	Grey	No	
041	0902_MW117_211125	HDPE (no PTFE)	20 mL	00350621038826	Grey	No	
042	0902_MW118_211125	HDPE (no PTFE)	20 mL	00350621065427	Grey	No	
042	0902_MW118_211125	HDPE (no PTFE)	20 mL	00350621038790	Grey	No	
042	0902_MW118_211125	HDPE (no PTFE)	20 mL	00350621038807	Grey	No	
042	0902_MW118_211125	HDPE (no PTFE)	20 mL	00350621065355	Grey	No	
043	0902_MW119_21112	HDPE (no PTFE)	20 mL	00350621065467	Grey	No	
043	0902_MW119_21112	HDPE (no PTFE)	20 mL	00350621065407	Grey	No	
043	0902_MW119_21112	HDPE (no PTFE)	20 mL	00350621065403	Grey	No	
043	0902_MW119_21112	HDPE (no PTFE)	20 mL	00350621065414	Grey	No	
044	0902_SD005_211125	HDPE Soil Jar	200 mL	00620719053289	Grey	No	
045	0902_SD014_211125	HDPE Soil Jar	200 mL	00620719053326	Grey	No	
046	0902_SD023_211125	HDPE Soil Jar	200 mL	00620719053330	Grey	No	
047	0902_SD035_211125	HDPE Soil Jar	200 mL	00620719053280	Grey	No	
048	0902_SW005_211125	HDPE (no PTFE)	20 mL	00350621041595	Grey	No	
048	0902_SW005_211125	HDPE (no PTFE)	20 mL	00350621064178	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 30771 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/11/21 4pm	DATE TIME:	DATE TIME: 26/11/21 1830

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

048	0902_SW005_211125	HDPE (no PTFE)	20 mL	00350621064155	Grey	No	
048	0902_SW005_211125	HDPE (no PTFE)	20 mL	00350621041496	Grey	No	
049	0902_SW014_211125	HDPE (no PTFE)	20 mL	00350621061583	Grey	No	
049	0902_SW014_211125	HDPE (no PTFE)	20 mL	00350621061587	Grey	No	
049	0902_SW014_211125	HDPE (no PTFE)	20 mL	00350621061533	Grey	No	
049	0902_SW014_211125	HDPE (no PTFE)	20 mL	00350621061424	Grey	No	
050	0902_SW023_211125	Clear Plastic Bottle - Natural	500 mL	00070121090786	Green	No	
050	0902_SW023_211125	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019161	Red	Yes	
050	0902_SW023_211125	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020081987	Purple	No	
050	0902_SW023_211125	HDPE (no PTFE)	20 mL	00350621041619	Grey	No	
050	0902_SW023_211125	HDPE (no PTFE)	20 mL	00350621041520	Grey	No	
050	0902_SW023_211125	HDPE (no PTFE)	20 mL	00350621041500	Grey	No	
050	0902_SW023_211125	HDPE (no PTFE)	20 mL	00350621041745	Grey	No	
051	0902_SW030_21112	HDPE (no PTFE)	20 mL	00350621041641	Grey	No	
051	0902_SW030_21112	HDPE (no PTFE)	20 mL	00350621041582	Grey	No	
051	0902_SW030_21112	HDPE (no PTFE)	20 mL	00350621041722	Grey	No	
051	0902_SW030_21112	HDPE (no PTFE)	20 mL	00350621041683	Grey	No	
052	0902_SW035_211125	Clear Plastic Bottle - Natural	500 mL	00070121090808	Green	No	
052	0902_SW035_211125	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019053	Red	Yes	
052	0902_SW035_211125	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020077234	Purple	No	
052	0902_SW035_211125	HDPE (no PTFE)	20 mL	00350621041677	Grey	No	
052	0902_SW035_211125	HDPE (no PTFE)	20 mL	00350621041755	Grey	No	
052	0902_SW035_211125	HDPE (no PTFE)	20 mL	00350621041746	Grey	No	
052	0902_SW035_211125	HDPE (no PTFE)	20 mL	00350621041772	Grey	No	
053	0902_QC104_211123	HDPE (no PTFE)	20 mL	00350621061518	Grey	No	
053	0902_QC104_211123	HDPE (no PTFE)	20 mL	00350621061473	Grey	No	
053	0902_QC104_211123	HDPE (no PTFE)	20 mL	00350621061624	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 30771 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/11/21 4pm	DATE TIME:	DATE TIME: 26/11/21 1830

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

053	0902_QC104_211123	HDPE (no PTFE)	20 mL	00350621061666	Grey	No	
054	0902_QC105_211123	HDPE (no PTFE)	20 mL	00350621041788	Grey	No	
054	0902_QC105_211123	HDPE (no PTFE)	20 mL	00350621041664	Grey	No	
054	0902_QC105_211123	HDPE (no PTFE)	20 mL	00350621041704	Grey	No	
054	0902_QC105_211123	HDPE (no PTFE)	20 mL	00350621041750	Grey	No	
055	0902_QC300_211122	HDPE (no PTFE)	20 mL	00350621041536	Grey	No	
055	0902_QC300_211122	HDPE (no PTFE)	20 mL	00350621041525	Grey	No	
055	0902_QC300_211122	HDPE (no PTFE)	20 mL	00350621041543	Grey	No	
055	0902_QC300_211122	HDPE (no PTFE)	20 mL	00350621041507	Grey	No	
055	0902_QC300_211122	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019243	Red	No	
056	0902_QC301_211123	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019122	Red	Yes	
056	0902_QC301_211123	HDPE (no PTFE)	20 mL	00350621041707	Grey	No	
056	0902_QC301_211123	HDPE (no PTFE)	20 mL	00350621041685	Grey	No	
056	0902_QC301_211123	HDPE (no PTFE)	20 mL	00350621041668	Grey	No	
056	0902_QC301_211123	HDPE (no PTFE)	20 mL	00350621041558	Grey	No	
057	0902_QC106_211124	HDPE (no PTFE)	20 mL	00350621041652	Grey	No	
057	0902_QC106_211124	HDPE (no PTFE)	20 mL	00350621041710	Grey	No	
057	0902_QC106_211124	HDPE (no PTFE)	20 mL	00350621041754	Grey	No	
057	0902_QC106_211124	HDPE (no PTFE)	20 mL	00350621041767	Grey	No	
058	0902_QC109_211125	HDPE Soil Jar	200 mL	00620719054013	Grey	No	
059	0902_QC107_211124	HDPE (no PTFE)	20 mL	00350621041575	Grey	No	
059	0902_QC107_211124	HDPE (no PTFE)	20 mL	00350621041524	Grey	No	
059	0902_QC107_211124	HDPE (no PTFE)	20 mL	00350621041584	Grey	No	
059	0902_QC107_211124	HDPE (no PTFE)	20 mL	00350621041505	Grey	No	
060	0902_QC302_211124	HDPE (no PTFE)	20 mL	00350621064317	Grey	No	
060	0902_QC302_211124	HDPE (no PTFE)	20 mL	00350621041499	Grey	No	
060	0902_QC302_211124	HDPE (no PTFE)	20 mL	00350621041515	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 30771 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Juliana G DATE TIME: 26/11/21 4pm	DATE TIME:	DATE TIME: 26/11/21 1830

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 4 °C

Other comments:

060	0902_QC302_211124	HDPE (no PTFE)	20 mL	00350621064363	Grey	No	
060	0902_QC302_211124	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821005711	Red	Yes	
061	0902_QC108_211125	HDPE (no PTFE)	20 mL	00350621041529	Grey	No	
061	0902_QC108_211125	HDPE (no PTFE)	20 mL	00350621041495	Grey	No	
061	0902_QC108_211125	HDPE (no PTFE)	20 mL	00350621041508	Grey	No	
061	0902_QC108_211125	HDPE (no PTFE)	20 mL	00350621041523	Grey	No	
061	0902_QC108_211125	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019148	Red	Yes	
061	0902_QC108_211125	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020081798	Purple	No	
061	0902_QC108_211125	Clear Plastic Bottle - Natural	500 mL	00070121090815	Green	No	
062	0902_QC303_211125	HDPE (no PTFE)	20 mL	00350621064259	Grey	No	
062	0902_QC303_211125	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821005673	Red	Yes	
062	0902_QC303_211125	HDPE (no PTFE)	20 mL	00350621064354	Grey	No	
062	0902_QC303_211125	HDPE (no PTFE)	20 mL	00350621041634	Grey	No	
062	0902_QC303_211125	HDPE (no PTFE)	20 mL	00350621041541	Grey	No	
063	0902_QC304_211126	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821005738	Red	Yes	
063	0902_QC304_211126	HDPE (no PTFE)	20 mL	00350621064183	Grey	No	
063	0902_QC304_211126	HDPE (no PTFE)	20 mL	00350621064131	Grey	No	
063	0902_QC304_211126	HDPE (no PTFE)	20 mL	00350621064091	Grey	No	
063	0902_QC304_211126	HDPE (no PTFE)	20 mL	00350621064320	Grey	No	

Total Bottle Count: ALS: 261, Non ALS: 0

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2143118**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Christopher.Redford@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 5
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 30771	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Richmond		
Sampler	: ANDREW SPOOR, AYRTON DONEGAN		

Dates

Date Samples Received	: 26-Nov-2021 18:30	Issue Date	: 30-Nov-2021
Client Requested Due Date	: 03-Dec-2021	Scheduled Reporting Date	: **03-Dec-2021**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Intact.
No. of coolers/boxes	: 3	Temperature	: 4.0'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 66 / 66
		No. of samples NOT collected	1

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Sample 0902_MW043_211123 was not received due to the following reason: Sample not received.
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2143118-044	25-Nov-2021 16:03	0902_SD005_211125	✓
ES2143118-045	25-Nov-2021 14:58	0902_SD014_211125	✓
ES2143118-046	25-Nov-2021 11:56	0902_SD023_211125	✓
ES2143118-047	25-Nov-2021 14:02	0902_SD035_211125	✓
ES2143118-058	25-Nov-2021 12:03	0902_QC109_211125	✓
ES2143118-066	26-Nov-2021 00:00	SD001	✓
ES2143118-067	26-Nov-2021 00:00	SD024	✓

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content
ES2143118-044	25-Nov-2021 16:03	0902_SD005_211125	✓
ES2143118-045	25-Nov-2021 14:58	0902_SD014_211125	✓
ES2143118-046	25-Nov-2021 11:56	0902_SD023_211125	✓
ES2143118-047	25-Nov-2021 14:02	0902_SD035_211125	✓
ES2143118-058	25-Nov-2021 12:03	0902_QC109_211125	✓
ES2143118-066	26-Nov-2021 00:00	SD001	✓
ES2143118-067	26-Nov-2021 00:00	SD024	✓

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - EG020F Dissolved Metals by ICP/MS	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EK067G Total Phosphorus as P By Discrete Analyser	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-04 Nitrite and Nitrate
ES2143118-001	25-Nov-2021 15:48	0902_MW004_211125				✓		
ES2143118-002	25-Nov-2021 15:11	0902_MW005_211125				✓		
ES2143118-003	24-Nov-2021 12:09	0902_MW020_211124				✓		
ES2143118-004	24-Nov-2021 10:33	0902_MW021_211124				✓		
ES2143118-005	23-Nov-2021 15:06	0902_MW024_211123				✓		
ES2143118-006	23-Nov-2021 13:44	0902_MW027_211123				✓		
ES2143118-007	24-Nov-2021 14:01	0902_MW032_211124				✓		
ES2143118-008	24-Nov-2021 14:10	0902_MW033_211124				✓		
ES2143118-009	24-Nov-2021 13:50	0902_MW034_211124				✓		
ES2143118-011	23-Nov-2021 14:03	0902_MW047_211123				✓		
ES2143118-012	23-Nov-2021 13:55	0902_MW048_211123				✓		
ES2143118-013	23-Nov-2021 14:38	0902_MW050_211123				✓		
ES2143118-014	23-Nov-2021 14:19	0902_MW051_211123				✓		
ES2143118-015	23-Nov-2021 14:11	0902_MW052_211123				✓		
ES2143118-016	24-Nov-2021 09:15	0902_MW053_211124				✓		
ES2143118-017	24-Nov-2021 08:33	0902_MW054_211124				✓		
ES2143118-018	24-Nov-2021 09:00	0902_MW056_211124				✓		
ES2143118-019	24-Nov-2021 08:14	0902_MW057_211124				✓		
ES2143118-020	24-Nov-2021 08:47	0902_MW058_211124				✓		
ES2143118-021	24-Nov-2021 15:26	0902_MW060_211124				✓		
ES2143118-022	24-Nov-2021 15:38	0902_MW061_211124				✓		
ES2143118-023	24-Nov-2021 15:08	0902_MW072_211124				✓		
ES2143118-024	24-Nov-2021 14:23	0902_MW073_211124				✓		
ES2143118-025	24-Nov-2021 14:41	0902_MW074_211124				✓		
ES2143118-026	25-Nov-2021 09:37	0902_MW075_211125	✓	✓	✓	✓	✓	✓
ES2143118-027	25-Nov-2021 09:09	0902_MW076_211125				✓		
ES2143118-028	25-Nov-2021 09:22	0902_MW077_211125				✓		
ES2143118-029	25-Nov-2021 09:56	0902_MW078_211125				✓		
ES2143118-030	24-Nov-2021 16:43	0902_MW079_211124				✓		
ES2143118-031	24-Nov-2021 16:26	0902_MW080_211124				✓		
ES2143118-032	25-Nov-2021 10:20	0902_MW082_211125	✓	✓	✓	✓	✓	✓
ES2143118-033	25-Nov-2021 10:58	0902_MW091_211125	✓	✓	✓	✓	✓	✓
ES2143118-034	25-Nov-2021 11:26	0902_MW092_211125				✓		
ES2143118-035	24-Nov-2021 16:25	0902_MW106_211124				✓		
ES2143118-036	23-Nov-2021 15:55	0902_MW107D_211123				✓		
ES2143118-037	23-Nov-2021 15:33	0902_MW107I_211123				✓		
ES2143118-038	23-Nov-2021 16:42	0902_MW108_211123				✓		
ES2143118-039	25-Nov-2021 15:21	0902_MW111_211125				✓		
ES2143118-040	25-Nov-2021 15:41	0902_MW112_211125				✓		
ES2143118-041	25-Nov-2021 12:35	0902_MW117_211125				✓		
ES2143118-042	25-Nov-2021 12:30	0902_MW118_211125				✓		

			WATER - EG020F Dissolved Metals by ICP/MS	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EK067G Total Phosphorus as P By Discrete Analyser	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-04 Nitrite and Nitrate
ES2143118-043	25-Nov-2021 12:45	0902_MW119_21112				✓		
ES2143118-048	25-Nov-2021 16:04	0902_SW005_211125				✓		
ES2143118-049	25-Nov-2021 15:00	0902_SW014_211125				✓		
ES2143118-050	25-Nov-2021 11:55	0902_SW023_211125	✓	✓	✓	✓	✓	✓
ES2143118-051	23-Nov-2021 17:22	0902_MW030_211123				✓		
ES2143118-052	25-Nov-2021 14:03	0902_SW035_211125	✓	✓	✓	✓	✓	✓
ES2143118-053	23-Nov-2021 15:34	0902_QC104_211123				✓		
ES2143118-054	23-Nov-2021 16:43	0902_QC105_211123				✓		
ES2143118-055	23-Nov-2021 17:27	0902_QC300_211122	✓			✓		
ES2143118-056	23-Nov-2021 17:32	0902_QC301_211123	✓			✓		
ES2143118-057	24-Nov-2021 09:01	0902_QC106_211124				✓		
ES2143118-059	24-Nov-2021 16:24	0902_QC107_211124				✓		
ES2143118-060	25-Nov-2021 20:12	0902_QC302_211124	✓			✓		
ES2143118-061	25-Nov-2021 12:03	0902_QC108_211125	✓	✓	✓	✓	✓	✓
ES2143118-062	25-Nov-2021 17:15	0902_QC303_211125	✓			✓		
ES2143118-063	26-Nov-2021 14:09	0902_QC304_211126	✓			✓		
ES2143118-064	26-Nov-2021 00:00	SW001				✓		
ES2143118-065	26-Nov-2021 00:00	SW024				✓		

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

ANDREW SPOOR

- *AU Certificate of Analysis - NATA (COA)	Email	Andrew.Spoor@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Andrew.Spoor@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Andrew.Spoor@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Andrew.Spoor@aecom.com
- Chain of Custody (CoC) (COC)	Email	Andrew.Spoor@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Andrew.Spoor@aecom.com
- EDI Format - XTab (XTAB)	Email	Andrew.Spoor@aecom.com

AYRTON DONEGAN

- *AU Certificate of Analysis - NATA (COA)	Email	ayrton.donegan@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	ayrton.donegan@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	ayrton.donegan@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	ayrton.donegan@aecom.com
- Chain of Custody (CoC) (COC)	Email	ayrton.donegan@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	ayrton.donegan@aecom.com
- EDI Format - XTab (XTAB)	Email	ayrton.donegan@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2143118**	Page	: 1 of 38
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 26-Nov-2021 18:30
Order number	: 60612562_5.1	Date Analysis Commenced	: 27-Nov-2021
C-O-C number	: 30771	Issue Date	: 06-Dec-2021 17:10
Sampler	: ANDREW SPOOR, AYRTON DONEGAN		
Site	: Richmond		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 67		
No. of samples analysed	: 66		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Ashesh Patel	Senior Chemist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EG020: Bromine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- EG020: Bromine & Iodine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- EP231X: LOR raised due to high moisture content.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW004_211125	0902_MW005_211125	0902_MW020_211124	0902_MW021_211124	0902_MW024_211123
				Sampling date / time	25-Nov-2021 15:48	25-Nov-2021 15:11	24-Nov-2021 12:09	24-Nov-2021 10:33	23-Nov-2021 15:06
					ES2143118-001	ES2143118-002	ES2143118-003	ES2143118-004	ES2143118-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.41**	**0.06**	**0.30**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	**0.70**	**0.07**	**0.14**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.08**	**14.8**	**1.57**	**0.28**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.19**	**0.05**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.04**	**1.02**	**2.76**	**0.06**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.10**	**0.12**	**0.04**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.79**	**0.41**	**0.18**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.07**	**0.09**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.24**	**0.21**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW004_211125	0902_MW005_211125	0902_MW020_211124	0902_MW021_211124	0902_MW024_211123
				Sampling date / time	25-Nov-2021 15:48	25-Nov-2021 15:11	24-Nov-2021 12:09	24-Nov-2021 10:33	23-Nov-2021 15:06
Compound	CAS Number	LOR	Unit		ES2143118-001	ES2143118-002	ES2143118-003	ES2143118-004	ES2143118-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.12**	**18.3**	**5.34**	**1.00**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.12**	**15.8**	**4.33**	**0.34**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.12**	**17.4**	**5.22**	**0.86**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**96.1**	**93.3**	**106**	**104**	**103**
13C8-PFOA	----	0.02	%		**96.8**	**95.7**	**95.8**	**95.6**	**98.1**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW027_211123	0902_MW032_211124	0902_MW033_211124	0902_MW034_211124	0902_MW047_211123
				Sampling date / time	23-Nov-2021 13:44	24-Nov-2021 14:01	24-Nov-2021 14:10	24-Nov-2021 13:50	23-Nov-2021 14:03
					ES2143118-006	ES2143118-007	ES2143118-008	ES2143118-009	ES2143118-011
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.23**	**2.51**	<0.02	**0.05**	**1.91**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.17**	**2.42**	<0.02	**0.03**	**1.64**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.97**	**13.7**	**0.10**	**0.18**	**8.85**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.02**	**0.51**	<0.02	<0.02	**0.35**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.31**	**4.20**	**0.02**	**0.09**	**5.18**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**1.0**	<0.1	<0.1	**0.1**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.03**	**0.51**	<0.02	<0.02	**0.32**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.17**	**3.56**	**0.02**	**0.06**	**1.77**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.27**	<0.02	<0.02	**0.22**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.02**	**0.39**	<0.01	<0.01	**0.38**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW027_211123	0902_MW032_211124	0902_MW033_211124	0902_MW034_211124	0902_MW047_211123
				Sampling date / time	23-Nov-2021 13:44	24-Nov-2021 14:01	24-Nov-2021 14:10	24-Nov-2021 13:50	23-Nov-2021 14:03
Compound	CAS Number	LOR	Unit		ES2143118-006	ES2143118-007	ES2143118-008	ES2143118-009	ES2143118-011
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.92**	**29.1**	**0.14**	**0.41**	**20.7**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.28**	**17.9**	**0.12**	**0.27**	**14.0**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.73**	**26.1**	**0.14**	**0.38**	**18.7**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**101**	**106**	**102**	**105**	**104**
13C8-PFOA	----	0.02	%		**97.5**	**97.4**	**98.4**	**94.0**	**98.3**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW048_211123	0902_MW050_211123	0902_MW051_211123	0902_MW052_211123	0902_MW053_211124
				Sampling date / time	23-Nov-2021 13:55	23-Nov-2021 14:38	23-Nov-2021 14:19	23-Nov-2021 14:11	24-Nov-2021 09:15
					ES2143118-012	ES2143118-013	ES2143118-014	ES2143118-015	ES2143118-016
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.10**	**0.18**	**78.0**	**9.57**	**0.03**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.06**	**0.14**	**63.5**	**5.50**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.17**	**1.30**	**656**	**21.8**	**0.12**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.10**	**59.2**	**0.12**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.05**	**4.96**	**239**	**0.33**	**0.08**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	**0.10**	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**16.1**	**1.4**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.03**	**0.11**	**22.2**	**2.20**	**0.08**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.15**	**0.39**	**130**	**12.7**	**0.14**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.05**	**13.8**	**0.67**	**0.03**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.13**	**39.4**	**0.29**	**0.04**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	**0.15**	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	**0.03**	**0.02**	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW048_211123	0902_MW050_211123	0902_MW051_211123	0902_MW052_211123	0902_MW053_211124
				Sampling date / time	23-Nov-2021 13:55	23-Nov-2021 14:38	23-Nov-2021 14:19	23-Nov-2021 14:11	24-Nov-2021 09:15
Compound	CAS Number	LOR	Unit		ES2143118-012	ES2143118-013	ES2143118-014	ES2143118-015	ES2143118-016
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	**0.10**	**0.14**	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.56**	**7.49**	**1320**	**54.6**	**0.52**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.22**	**6.26**	**895**	**22.1**	**0.20**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.50**	**7.22**	**1190**	**49.0**	**0.52**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**109**	**102**	**99.8**	**100**	**106**
13C8-PFOA	----	0.02	%		**95.8**	**97.1**	**94.1**	**93.0**	**99.3**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW054_211124	0902_MW056_211124	0902_MW057_211124	0902_MW058_211124	0902_MW060_211124
				Sampling date / time	24-Nov-2021 08:33	24-Nov-2021 09:00	24-Nov-2021 08:14	24-Nov-2021 08:47	24-Nov-2021 15:26
					ES2143118-017	ES2143118-018	ES2143118-019	ES2143118-020	ES2143118-021
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.14**	<0.02	**0.12**	**1.94**	**0.05**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.04**	<0.02	**0.06**	**1.23**	**0.04**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.16**	<0.01	**0.73**	**5.63**	**0.45**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.05**	**0.02**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	<0.01	**0.13**	**0.05**	**0.23**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**0.3**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.06**	**0.46**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.17**	**3.03**	**0.09**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.04**	**0.42**	**0.02**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.06**	**0.59**	**0.05**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW054_211124	0902_MW056_211124	0902_MW057_211124	0902_MW058_211124	0902_MW060_211124
				Sampling date / time	24-Nov-2021 08:33	24-Nov-2021 09:00	24-Nov-2021 08:14	24-Nov-2021 08:47	24-Nov-2021 15:26
Compound	CAS Number	LOR	Unit		ES2143118-017	ES2143118-018	ES2143118-019	ES2143118-020	ES2143118-021
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.36**	<0.01	**1.37**	**13.7**	**0.95**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.18**	<0.01	**0.86**	**5.68**	**0.68**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.32**	<0.01	**1.31**	**12.4**	**0.89**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**108**	**99.2**	**105**	**102**	**104**
13C8-PFOA	----	0.02	%		**96.7**	**94.0**	**100**	**96.0**	**92.7**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW061_211124	0902_MW072_211124	0902_MW073_211124	0902_MW074_211124	0902_MW075_211125
				Sampling date / time	24-Nov-2021 15:38	24-Nov-2021 15:08	24-Nov-2021 14:23	24-Nov-2021 14:41	25-Nov-2021 09:37
Compound	CAS Number	LOR	Unit		ES2143118-022	ES2143118-023	ES2143118-024	ES2143118-025	ES2143118-026
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	----	----	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	----	----	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	----	----	86
Total Alkalinity as CaCO3	----	1	mg/L		----	----	----	----	86
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	----	----	6
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	----	----	87
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	----	----	14
Magnesium	7439-95-4	1	mg/L		----	----	----	----	11
Sodium	7440-23-5	1	mg/L		----	----	----	----	68
Potassium	7440-09-7	1	mg/L		----	----	----	----	1
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	----	----	<0.01
Manganese	7439-96-5	0.001	mg/L		----	----	----	----	0.190
Iron	7439-89-6	0.05	mg/L		----	----	----	----	<0.05
Bromine	7726-95-6	0.1	mg/L		----	----	----	----	0.2
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	----	----	0.02
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	----	----	0.02
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	----	----	3.26
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	----	----	3.28
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	----	----	0.06
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	----	----	----	4.30
ø Total Cations	----	0.01	meq/L		----	----	----	----	4.59
ø Ionic Balance	----	0.01	%		----	----	----	----	3.26
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW061_211124	0902_MW072_211124	0902_MW073_211124	0902_MW074_211124	0902_MW075_211125
				Sampling date / time	24-Nov-2021 15:38	24-Nov-2021 15:08	24-Nov-2021 14:23	24-Nov-2021 14:41	25-Nov-2021 09:37
					ES2143118-022	ES2143118-023	ES2143118-024	ES2143118-025	ES2143118-026
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.07**	**21.6**	**6.10**	**5.20**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.04**	**15.4**	**6.09**	**4.69**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.41**	**104**	**38.5**	**27.1**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**4.15**	**1.95**	**1.36**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.27**	**25.6**	**4.32**	**5.59**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**2.6**	**1.3**	**2.5**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.08**	**3.80**	**2.70**	**1.43**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.14**	**21.4**	**15.7**	**8.87**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.03**	**2.12**	**0.95**	**0.82**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.04**	**4.16**	**1.72**	**1.28**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW061_211124	0902_MW072_211124	0902_MW073_211124	0902_MW074_211124	0902_MW075_211125
				Sampling date / time	24-Nov-2021 15:38	24-Nov-2021 15:08	24-Nov-2021 14:23	24-Nov-2021 14:41	25-Nov-2021 09:37
Compound	CAS Number	LOR	Unit		ES2143118-022	ES2143118-023	ES2143118-024	ES2143118-025	ES2143118-026
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.08**	**205**	**79.3**	**58.8**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.68**	**130**	**42.8**	**32.7**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.04**	**185**	**71.3**	**52.8**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**96.5**	**95.1**	**93.7**	**105**	**97.5**
13C8-PFOA	----	0.02	%		**93.5**	**97.7**	**94.0**	**96.7**	**95.8**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW076_211125	0902_MW077_211125	0902_MW078_211125	0902_MW079_211124	0902_MW080_211124
				Sampling date / time	25-Nov-2021 09:09	25-Nov-2021 09:22	25-Nov-2021 09:56	24-Nov-2021 16:43	24-Nov-2021 16:26
					ES2143118-027	ES2143118-028	ES2143118-029	ES2143118-030	ES2143118-031
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.06**	**0.14**	**0.86**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	**0.03**	**0.11**	**0.62**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.03**	**0.04**	**0.18**	**0.82**	**4.38**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	**0.28**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.05**	**0.01**	**0.08**	**2.92**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	**0.16**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.06**	**0.13**	**1.01**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.10**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.02**	**0.18**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW076_211125	0902_MW077_211125	0902_MW078_211125	0902_MW079_211124	0902_MW080_211124
				Sampling date / time	25-Nov-2021 09:09	25-Nov-2021 09:22	25-Nov-2021 09:56	24-Nov-2021 16:43	24-Nov-2021 16:26
Compound	CAS Number	LOR	Unit		ES2143118-027	ES2143118-028	ES2143118-029	ES2143118-030	ES2143118-031
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.03**	**0.09**	**0.34**	**1.34**	**10.5**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.03**	**0.09**	**0.19**	**0.90**	**7.30**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.03**	**0.09**	**0.31**	**1.21**	**9.61**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**99.7**	**102**	**102**	**99.4**	**105**
13C8-PFOA	----	0.02	%		**96.1**	**93.8**	**93.4**	**98.4**	**95.7**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW082_211125	0902_MW091_211125	0902_MW092_211125	0902_MW106_211124	0902_MW107D_211123
				Sampling date / time	25-Nov-2021 10:20	25-Nov-2021 10:58	25-Nov-2021 11:26	24-Nov-2021 16:25	23-Nov-2021 15:55
Compound	CAS Number	LOR	Unit		ES2143118-032	ES2143118-033	ES2143118-034	ES2143118-035	ES2143118-036
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		286	34	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L		286	34	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		28	21	----	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		292	8	----	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		56	12	----	----	----
Magnesium	7439-95-4	1	mg/L		39	5	----	----	----
Sodium	7440-23-5	1	mg/L		187	14	----	----	----
Potassium	7440-09-7	1	mg/L		<1	8	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	0.01	----	----	----
Manganese	7439-96-5	0.001	mg/L		0.931	0.001	----	----	----
Iron	7439-89-6	0.05	mg/L		0.32	<0.05	----	----	----
Bromine	7726-95-6	0.1	mg/L		0.8	<0.1	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		<0.01	<0.01	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	<0.01	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		0.02	7.78	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		0.02	7.78	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		0.12	0.05	----	----	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	1.90	----	----	----
ø Total Anions	----	0.01	meq/L		14.5	----	----	----	----
ø Total Cations	----	0.01	meq/L		14.1	1.82	----	----	----
ø Ionic Balance	----	0.01	%		1.38	----	----	----	----

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW082_211125	0902_MW091_211125	0902_MW092_211125	0902_MW106_211124	0902_MW107D_211123
				Sampling date / time	25-Nov-2021 10:20	25-Nov-2021 10:58	25-Nov-2021 11:26	24-Nov-2021 16:25	23-Nov-2021 15:55
					ES2143118-032	ES2143118-033	ES2143118-034	ES2143118-035	ES2143118-036
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	**0.34**	**3.29**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.20**	**2.79**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.02**	<0.01	**1.89**	**14.2**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.11**	**0.97**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.02**	<0.01	**0.97**	**7.51**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	**0.8**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.07**	**1.45**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.44**	**8.38**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.04**	**1.11**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.08**	**2.07**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW082_211125	0902_MW091_211125	0902_MW092_211125	0902_MW106_211124	0902_MW107D_211123
				Sampling date / time	25-Nov-2021 10:20	25-Nov-2021 10:58	25-Nov-2021 11:26	24-Nov-2021 16:25	23-Nov-2021 15:55
Compound	CAS Number	LOR	Unit		ES2143118-032	ES2143118-033	ES2143118-034	ES2143118-035	ES2143118-036
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	**0.12**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.04**	<0.01	**4.14**	**42.7**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.04**	<0.01	**2.86**	**21.7**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.04**	<0.01	**3.83**	**38.9**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**95.8**	**96.1**	**104**	**109**	**96.9**
13C8-PFOA	----	0.02	%		**99.7**	**94.9**	**101**	**99.5**	**98.0**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW107I_211123	0902_MW108_211123	0902_MW111_211125	0902_MW112_211125	0902_MW117_211125
				Sampling date / time	23-Nov-2021 15:33	23-Nov-2021 16:42	25-Nov-2021 15:21	25-Nov-2021 15:41	25-Nov-2021 12:35
					ES2143118-037	ES2143118-038	ES2143118-039	ES2143118-040	ES2143118-041
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**1.28**	**0.30**	**0.16**	<0.02	**4.24**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.94**	**0.12**	**0.04**	<0.02	**3.88**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**7.05**	**0.88**	**0.27**	<0.01	**36.5**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.38**	**0.05**	<0.02	<0.02	**2.88**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**2.67**	**0.62**	**0.05**	<0.01	**69.6**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.10**
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**0.2**	<0.1	<0.1	<0.1	**0.9**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.48**	**0.12**	<0.02	<0.02	**1.73**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**3.08**	**0.34**	**0.08**	<0.02	**11.2**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.41**	**0.08**	<0.02	<0.02	**0.81**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.77**	**0.13**	**0.01**	<0.01	**1.53**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.03**	<0.02	<0.02	**0.05**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW107I_211123	0902_MW108_211123	0902_MW111_211125	0902_MW112_211125	0902_MW117_211125
				Sampling date / time	23-Nov-2021 15:33	23-Nov-2021 16:42	25-Nov-2021 15:21	25-Nov-2021 15:41	25-Nov-2021 12:35
Compound	CAS Number	LOR	Unit		ES2143118-037	ES2143118-038	ES2143118-039	ES2143118-040	ES2143118-041
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	**0.10**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**17.3**	**2.67**	**0.61**	<0.01	**134**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**9.72**	**1.50**	**0.32**	<0.01	**106**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**15.9**	**2.47**	**0.57**	<0.01	**127**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**98.8**	**97.1**	**99.2**	**111**	**98.3**
13C8-PFOA	----	0.02	%		**98.7**	**95.6**	**94.3**	**98.0**	**97.4**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW118_211125	0902_MW119_211125	0902_MW030_211123	0902_QC104_211123	0902_QC105_211123
				Sampling date / time	25-Nov-2021 12:30	25-Nov-2021 12:45	23-Nov-2021 17:22	23-Nov-2021 15:34	23-Nov-2021 16:43
					ES2143118-042	ES2143118-043	ES2143118-051	ES2143118-053	ES2143118-054
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**3.90**	**0.28**	**0.28**	**3.48**	**0.33**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**3.66**	**0.25**	**0.21**	**3.40**	**0.13**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**19.6**	**4.19**	**1.57**	**18.8**	**0.95**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**1.84**	**0.14**	**0.05**	**1.15**	**0.05**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**840**	**6.05**	**0.94**	**7.88**	**0.80**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		**9.96**	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**1.8**	<0.1	<0.1	**0.9**	**0.1**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**2.44**	**0.20**	**0.05**	**1.42**	**0.14**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**9.13**	**0.69**	**0.30**	**9.18**	**0.42**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.85**	**0.14**	**0.05**	**1.19**	**0.09**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**3.24**	**0.26**	**0.12**	**2.32**	**0.16**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		**0.25**	<0.02	<0.02	<0.02	**0.03**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		**0.26**	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		**0.22**	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		**0.18**	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		**0.03**	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		**2.92**	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW118_211125	0902_MW119_211125	0902_MW030_211123	0902_QC104_211123	0902_QC105_211123
				Sampling date / time	25-Nov-2021 12:30	25-Nov-2021 12:45	23-Nov-2021 17:22	23-Nov-2021 15:34	23-Nov-2021 16:43
					ES2143118-042	ES2143118-043	ES2143118-051	ES2143118-053	ES2143118-054
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		**0.02**	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		**0.03**	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		**1.16**	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		**2.10**	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		**0.29**	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**904**	**12.2**	**3.57**	**49.7**	**3.20**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**860**	**10.2**	**2.51**	**26.7**	**1.75**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**884**	**11.8**	**3.31**	**45.2**	**2.99**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**77.2**	**104**	**104**	**89.3**	**100**
13C8-PFOA	----	0.02	%		**96.3**	**95.4**	**99.6**	**95.1**	**95.8**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC106_211124	0902_QC107_211124	----	----	----
				Sampling date / time	24-Nov-2021 09:01	24-Nov-2021 16:24	----	----	----
Compound	CAS Number	LOR	Unit		ES2143118-057	ES2143118-059	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.23**	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.18**	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**1.29**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.06**	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.53**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.06**	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.32**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.03**	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.05**	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC106_211124	0902_QC107_211124	----	----	----
				Sampling date / time	24-Nov-2021 09:01	24-Nov-2021 16:24	----	----	----
Compound	CAS Number	LOR	Unit		ES2143118-057	ES2143118-059	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**2.75**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**1.82**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**2.51**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**102**	**103**	----	----	----
13C8-PFOA	----	0.02	%		**94.9**	**94.1**	----	----	----

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)				Sample ID	0902_QC300_211122	----	----	----	----
				Sampling date / time	22-Nov-2021 17:27	----	----	----	----
Compound	*CAS Number*	*LOR*	*Unit*		**ES2143118-055**	--------	--------	--------	--------
					Result	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		<0.001	----	----	----	----
Iron	7439-89-6	0.05	mg/L		<0.05	----	----	----	----
Bromine	7726-95-6	0.1	mg/L		<0.1	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC300_211122	----	----	----	----
				Sampling date / time	22-Nov-2021 17:27	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2143118-055	--------	--------	--------	--------	
				Result	----	----	----	----	
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	----	----	----	----	
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	----	----	----	----	
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	----	----	----	----	
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	----	----	----	----	
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	----	----	----	----	
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	----	----	----	----	
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	----	----	----	----	
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	----	----	----	----	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	----	----	----	----	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	----	----	----	----	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	----	----	----	----	
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	----	----	----	----	
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	**102**	----	----	----	----	
13C8-PFOA	----	0.02	%	**97.2**	----	----	----	----	

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0902_SD005_211125	0902_SD014_211125	0902_SD023_211125	0902_SD035_211125	0902_QC109_211125
			Sampling date / time	25-Nov-2021 16:03	25-Nov-2021 14:58	25-Nov-2021 11:56	25-Nov-2021 14:02	25-Nov-2021 12:03
Compound	CAS Number	LOR	Unit	ES2143118-044	ES2143118-045	ES2143118-046	ES2143118-047	ES2143118-058
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**62.5**	**81.9**	**39.3**	**31.2**	**32.1**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	**0.0005**	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	**0.0004**	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0012**	**0.0064**	**0.0004**	**0.0004**	**0.0003**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	**0.0008**	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0167**	**0.0629**	**0.0094**	**0.0018**	**0.0087**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	**0.0017**	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	**0.0004**	**0.0022**	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	**0.0005**	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	**0.0009**	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	**0.0032**	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	**0.0070**	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	**0.0012**	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	**0.0010**	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	**0.0006**	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0006	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD005_211125	0902_SD014_211125	0902_SD023_211125	0902_SD035_211125	0902_QC109_211125
				Sampling date / time	25-Nov-2021 16:03	25-Nov-2021 14:58	25-Nov-2021 11:56	25-Nov-2021 14:02	25-Nov-2021 12:03
Compound	CAS Number	LOR	Unit		ES2143118-044	ES2143118-045	ES2143118-046	ES2143118-047	ES2143118-058
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0006	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0006	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0006	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0183**	**0.0896**	**0.0098**	**0.0022**	**0.0090**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0179**	**0.0693**	**0.0098**	**0.0022**	**0.0090**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0183**	**0.0728**	**0.0098**	**0.0022**	**0.0090**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**102**	**98.0**	**102**	**107**	**95.5**
13C8-PFOA	----	0.0002	%		**86.0**	**96.0**	**101**	**94.0**	**97.0**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0902_SD001_211126	0902_SD024_211126	----	----	----
				Sampling date / time	26-Nov-2021 00:00	26-Nov-2021 00:00	----	----	----
Compound	CAS Number	LOR	Unit		ES2143118-066	ES2143118-067	--------	--------	--------
					Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**53.0**	**21.5**	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		**0.0054**	<0.0002	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		**0.0075**	<0.0002	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0885**	<0.0002	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		**0.0282**	<0.0002	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**14.3**	<0.0002	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		**0.322**	<0.0002	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		**0.0105**	<0.0002	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		**0.0366**	<0.0002	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		**0.0339**	<0.0002	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		**0.104**	<0.0002	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		**0.708**	<0.0002	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		**6.81**	<0.0002	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		**10.7**	<0.0002	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		**8.99**	<0.0002	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		**1.52**	<0.0002	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		**1.01**	<0.0005	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		**0.183**	<0.0002	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0902_SD001_211126	0902_SD024_211126	----	----	----
				Sampling date / time	26-Nov-2021 00:00	26-Nov-2021 00:00	----	----	----
Compound	CAS Number	LOR	Unit		ES2143118-066	ES2143118-067	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		**0.0024**	<0.0002	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		**0.0020**	<0.0002	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		**0.132**	<0.0005	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		**5.35**	<0.0005	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		**0.718**	<0.0005	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**51.1**	<0.0002	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**14.4**	<0.0002	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**20.1**	<0.0002	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**90.0**	**96.5**	----	----	----
13C8-PFOA	----	0.0002	%		**98.5**	**95.5**	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW005_211125	0902_SW014_211125	0902_SW023_211125	0902_SW035_211125	0902_QC108_211125
				Sampling date / time	25-Nov-2021 16:04	25-Nov-2021 15:00	25-Nov-2021 11:55	25-Nov-2021 14:03	25-Nov-2021 12:03
Compound	CAS Number	LOR	Unit		ES2143118-048	ES2143118-049	ES2143118-050	ES2143118-052	ES2143118-061
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	50	45	51
Total Alkalinity as CaCO3	----	1	mg/L		----	----	50	45	51
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	20	3	20
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	149	13	148
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	15	10	15
Magnesium	7439-95-4	1	mg/L		----	----	15	4	15
Sodium	7440-23-5	1	mg/L		----	----	78	9	77
Potassium	7440-09-7	1	mg/L		----	----	8	6	8
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	0.26	0.03	0.22
Manganese	7439-96-5	0.001	mg/L		----	----	0.246	0.004	0.246
Iron	7439-89-6	0.05	mg/L		----	----	1.22	0.11	1.18
Bromine	7726-95-6	0.1	mg/L		----	----	0.3	<0.1	0.3
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	0.11	<0.01	0.11
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	0.02	<0.01	0.02
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	0.17	0.02	0.17
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	0.19	0.02	0.19
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	0.18	0.04	0.19
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	----	5.62	1.33	5.61
ø Total Cations	----	0.01	meq/L		----	----	5.58	1.37	5.54
ø Ionic Balance	----	0.01	%		----	----	0.34	----	0.66
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW005_211125	0902_SW014_211125	0902_SW023_211125	0902_SW035_211125	0902_QC108_211125
				Sampling date / time	25-Nov-2021 16:04	25-Nov-2021 15:00	25-Nov-2021 11:55	25-Nov-2021 14:03	25-Nov-2021 12:03
Compound	CAS Number	LOR	Unit		ES2143118-048	ES2143118-049	ES2143118-050	ES2143118-052	ES2143118-061
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.06**	**0.02**	<0.02	**0.02**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.03**	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.10**	**0.33**	**0.13**	**0.02**	**0.12**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.16**	**0.34**	**0.30**	**0.03**	**0.29**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.02**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.03**	**0.15**	**0.05**	<0.02	**0.04**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.02**	**0.01**	<0.01	**0.01**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW005_211125	0902_SW014_211125	0902_SW023_211125	0902_SW035_211125	0902_QC108_211125
				Sampling date / time	25-Nov-2021 16:04	25-Nov-2021 15:00	25-Nov-2021 11:55	25-Nov-2021 14:03	25-Nov-2021 12:03
Compound	CAS Number	LOR	Unit		ES2143118-048	ES2143118-049	ES2143118-050	ES2143118-052	ES2143118-061
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.29**	**0.95**	**0.51**	**0.05**	**0.48**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.26**	**0.67**	**0.43**	**0.05**	**0.41**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.29**	**0.92**	**0.51**	**0.05**	**0.48**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**106**	**100**	**107**	**100**	**105**
13C8-PFOA	----	0.02	%		**97.0**	**97.7**	**94.1**	**93.5**	**94.9**

Analytical Results

Sub-Matrix: **WATER**
(Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_QC301_211123	0902_QC302_211124	0902_QC303_211125	0902_QC304_211126	0902_SW001_211126
				Sampling date / time	23-Nov-2021 17:32	24-Nov-2021 20:12	25-Nov-2021 17:15	26-Nov-2021 14:09	26-Nov-2021 00:00
					ES2143118-056	ES2143118-060	ES2143118-062	ES2143118-063	ES2143118-064
					Result	Result	Result	Result	Result
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	<0.01	<0.01	<0.01	----
Manganese	7439-96-5	0.001	mg/L		<0.001	<0.001	<0.001	<0.001	----
Iron	7439-89-6	0.05	mg/L		<0.05	<0.05	<0.05	<0.05	----
Bromine	7726-95-6	0.1	mg/L		<0.1	<0.1	<0.1	<0.1	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.27**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.12**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.90**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.05**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**4.10**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.04**
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	**0.3**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.43**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.62**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.13**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.23**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.10**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.09**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.04**
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.02**
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_QC301_211123	0902_QC302_211124	0902_QC303_211125	0902_QC304_211126	0902_SW001_211126
				Sampling date / time	23-Nov-2021 17:32	24-Nov-2021 20:12	25-Nov-2021 17:15	26-Nov-2021 14:09	26-Nov-2021 00:00
Compound	CAS Number	LOR	Unit		ES2143118-056	ES2143118-060	ES2143118-062	ES2143118-063	ES2143118-064
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	**0.10**
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**7.54**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**5.00**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**7.08**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**105**	**102**	**101**	**103**	**104**
13C8-PFOA	----	0.02	%		**96.3**	**93.5**	**95.1**	**94.5**	**98.0**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_SW024_211126	----	----	----	----
				Sampling date / time	26-Nov-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2143118-065	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.01**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_SW024_211126	----	----	----	----
				Sampling date / time	26-Nov-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2143118-065	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.01**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.01**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.01**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**100**	----	----	----	----
13C8-PFOA	----	0.02	%		**97.5**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **RINSATE**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SEDIMENT**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SURFACE WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2143118**	Page	: 1 of 30
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 26-Nov-2021
Order number	: 60612562_5.1	Date Analysis Commenced	: 27-Nov-2021
C-O-C number	: 30771	Issue Date	: 06-Dec-2021
Sampler	: ANDREW SPOOR, AYRTON DONEGAN		
Site	: Richmond		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 67		
No. of samples analysed	: 66		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Ashesh Patel	Senior Chemist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4049673)									
ES2143085-011	Anonymous	EA055: Moisture Content	----	0.1	%	19.1	17.5	8.8	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4045649)									
ES2142974-052	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2143044-103	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0015	0.0018	16.7	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4045651)									
ES2143118-045	0902_SD014_211125	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	0.0005	0.0006	20.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	0.0004	0.0004	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0064	0.0066	2.5	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	0.0008	0.0008	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0629	0.0598	4.9	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	0.0017	0.0017	0.0	No Limit
ES2143123-011	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0013	0.0012	9.2	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4045651) - continued									
ES2143123-011	Anonymous	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0048	0.0052	7.3	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4045649)									
ES2142974-052	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2143044-103	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4045651)									
ES2143118-045	0902_SD014_211125	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0022	0.0020	5.3	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	0.0003	0.0003	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0005	0.0005	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	0.0009	0.0009	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	0.0032	0.0032	0.0	0% - 50%
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	0.0070	0.0067	4.8	0% - 20%
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	0.0012	0.0012	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	0.0010	0.0009	14.5	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2143123-011	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4045651) - continued									
ES2143123-011	Anonymous	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4045649)									
ES2142974-052	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2143044-103	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4045651)									
ES2143118-045	0902_SD014_211125	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	0.0006	0.0007	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4045651) - continued									
ES2143118-045	0902_SD014_211125	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0006	<0.0006	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0006	<0.0006	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0006	<0.0006	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0006	<0.0006	0.0	No Limit
ES2143123-011	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4045649)									
ES2142974-052	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2143044-103	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4045651)									

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4045651) - continued									
ES2143118-045	0902_SD014_211125	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2143123-011	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED037P: Alkalinity by PC Titrator (QC Lot: 4043384)									
ES2143098-001	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	15	16	0.0	0% - 50%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	15	16	0.0	0% - 50%
ES2143098-011	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	63	63	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	63	63	0.0	0% - 20%
ED037P: Alkalinity by PC Titrator (QC Lot: 4043388)									
ES2143118-032	0902_MW082_211125	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	286	286	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	286	286	0.0	0% - 20%
ES2143199-007	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	27000	27300	1.3	0% - 20%
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	233	199	15.9	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	27200	27500	1.2	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4041264)									
ES2143118-026	0902_MW075_211125	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	6	6	0.0	No Limit
EW2105030-003	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	24	24	0.0	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 4041263)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
ED045G: Chloride by Discrete Analyser (QC Lot: 4041263) - continued									
ES2143118-026	0902_MW075_211125	ED045G: Chloride	16887-00-6	1	mg/L	87	87	0.0	0% - 20%
EW2105030-003	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	40	40	0.0	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 4044438)									
ES2143036-005	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	60	61	0.0	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	18	18	0.0	0% - 50%
		ED093F: Sodium	7440-23-5	1	mg/L	291	298	2.4	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	29	30	3.8	0% - 20%
ES2142377-002	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	112	112	0.0	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	54	54	0.0	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	39	39	0.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	9	9	0.0	No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4044436)									
ES2143036-005	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.158	0.153	3.2	0% - 20%
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	0.10	0.10	0.0	0% - 50%
		EG020A-F: Iron	7439-89-6	0.05	mg/L	1.07	1.02	4.6	0% - 20%
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	1.0	1.0	0.0	0% - 50%
ES2142377-002	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.042	0.043	0.0	0% - 20%
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	0.69	0.64	8.2	0% - 50%
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	0.2	0.2	0.0	No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4047095)									
EB2134067-045	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	0.0	No Limit
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	<0.1	0.0	No Limit
ES2143167-001	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	<1 µg/L	<0.001	0.0	No Limit
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<10 µg/L	<0.01	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	<50 µg/L	<0.05	0.0	No Limit
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	400 µg/L	0.4	0.0	No Limit
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 4045742)									
ES2143118-026	0902_MW075_211125	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.02	<0.01	73.7	No Limit
EW2104903-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	2.58	2.35	9.2	0% - 20%
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4041262)									
ES2143115-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EW2105030-003	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4045741)									
ES2143118-026	0902_MW075_211125	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	3.28	3.38	3.2	0% - 20%
EW2104903-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	14.5	14.7	1.4	0% - 20%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4045743)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4045743) - continued									
ES2143201-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	1.14	1.20	5.2	0% - 20%
ES2143194-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	8.66	8.71	0.5	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4046947)									
ES2143118-001	0902_MW004_211125	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2143118-012	0902_MW048_211123	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.17	0.17	0.0	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.05	0.02	89.8	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.10	0.10	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4046948)									
ES2143118-021	0902_MW060_211124	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.45	0.41	9.3	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.23	0.22	0.0	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.05	0.05	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.04	0.03	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2143118-031	0902_MW080_211124	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	4.38	4.75	8.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	2.92	2.67	9.0	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.86	0.87	1.2	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.62	0.65	5.0	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.28	0.33	13.3	0% - 50%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4047464)									
ES2143118-040	0902_MW112_211125	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2143118-054	0902_QC105_211123	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.95	0.94	0.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.80	0.72	10.8	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.33	0.31	7.3	0% - 50%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.13	0.13	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.05	0.06	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4047464) - continued									
ES2143118-054	0902_QC105_211123	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4047739)									
ES2143046-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2143118-065	0902_SW024_211126	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4046947)									
ES2143118-001	0902_MW004_211125	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2143118-012	0902_MW048_211123	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.03	0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.15	0.15	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4046948)									
ES2143118-021	0902_MW060_211124	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.05	0.05	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4046948) - continued									
ES2143118-021	0902_MW060_211124	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.09	0.08	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2143118-031	0902_MW080_211124	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.18	0.17	6.6	0% - 50%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.16	0.18	9.1	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	1.01	1.09	8.0	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.10	0.11	17.4	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4047464)									
ES2143118-040	0902_MW112_211125	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2143118-054	0902_QC105_211123	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.16	0.14	12.1	0% - 50%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.14	0.13	9.8	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.42	0.37	12.9	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.09	0.08	14.4	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4047464) - continued									
ES2143118-054	0902_QC105_211123	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4047739)									
ES2143046-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2143118-065	0902_SW024_211126	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4046947)									
ES2143118-001	0902_MW004_211125	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4046947) - continued									
ES2143118-012	0902_MW048_211123	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4046948)									
ES2143118-021	0902_MW060_211124	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2143118-031	0902_MW080_211124	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4047464)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4047464) - continued									
ES2143118-040	0902_MW112_211125	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2143118-054	0902_QC105_211123	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4047739)									
ES2143046-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2143118-065	0902_SW024_211126	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4047739) - continued									
ES2143118-065	0902_SW024_211126	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4046947)									
ES2143118-001	0902_MW004_211125	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2143118-012	0902_MW048_211123	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4046948)									
ES2143118-021	0902_MW060_211124	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2143118-031	0902_MW080_211124	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4046948) - continued									
ES2143118-031	0902_MW080_211124	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4047464)									
ES2143118-040	0902_MW112_211125	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2143118-054	0902_QC105_211123	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4047739)									
ES2143046-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2143118-065	0902_SW024_211126	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4046947)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231P: PFAS Sums (QC Lot: 4046947) - continued									
ES2143118-001	0902_MW004_211125	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
ES2143118-012	0902_MW048_211123	EP231X: Sum of PFAS	----	0.01	µg/L	0.56	0.52	7.4	0% - 20%
EP231P: PFAS Sums (QC Lot: 4046948)									
ES2143118-021	0902_MW060_211124	EP231X: Sum of PFAS	----	0.01	µg/L	0.95	0.86	9.9	0% - 20%
ES2143118-031	0902_MW080_211124	EP231X: Sum of PFAS	----	0.01	µg/L	10.5	10.8	2.9	0% - 20%
EP231P: PFAS Sums (QC Lot: 4047464)									
ES2143118-040	0902_MW112_211125	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
ES2143118-054	0902_QC105_211123	EP231X: Sum of PFAS	----	0.01	µg/L	3.20	2.91	9.5	0% - 20%
EP231P: PFAS Sums (QC Lot: 4047739)									
ES2143046-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
ES2143118-065	0902_SW024_211126	EP231X: Sum of PFAS	----	0.01	µg/L	0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4045649)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.2	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	81.6	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.2	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.0	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4045651)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.2	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.0	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.4	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4045649)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	82.4	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.8	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	118	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.6	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.4	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	85.7	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4045651)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	84.8	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	115	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	111	64.0	136

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4045651) - continued								
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	89.7	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4045649)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	82.0	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	88.8	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	78.8	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	85.6	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.4	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4045651)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	94.1	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	91.3	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	92.9	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	94.6	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4045649)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	93.2	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	82.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	97.2	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	76.0	69.2	143
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4045651)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	94.0	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	98.8	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	90.8	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	81.2	69.2	143

Sub-Matrix: **WATER**

	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
		Spike	Spike Recovery (%)	Acceptable Limits (%)

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
ED037P: Alkalinity by PC Titrator (QCLot: 4043384)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	92.7	81.0	111
				----	50 mg/L	105	80.0	120
ED037P: Alkalinity by PC Titrator (QCLot: 4043388)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	94.3	81.0	111
				----	50 mg/L	103	80.0	120
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4041264)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	97.7	82.0	122
				<1	500 mg/L	96.9	82.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 4041263)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	94.8	80.9	127
				<1	1000 mg/L	90.4	80.9	127
ED093F: Dissolved Major Cations (QCLot: 4044438)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	96.0	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	94.4	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	95.3	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	94.6	85.0	113
ED093F: Dissolved Major Cations (QCLot: 4044439)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	98.5	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	100	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	99.6	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	97.3	85.0	113
EG020F: Dissolved Metals by ICP-MS (QCLot: 4044436)								
EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	91.2	80.0	116
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	89.3	82.0	110
EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	91.1	82.0	112
EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	----	----	----	----
EG020F: Dissolved Metals by ICP-MS (QCLot: 4047095)								
EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	94.4	80.0	116
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	92.9	82.0	110
EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	92.9	82.0	112
EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4045742)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	100	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4041262)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	102	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4045741)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	96.5	91.0	113

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4045743)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	93.4	71.0	101
				<0.01	0.442 mg/L	98.7	72.0	108
				<0.01	1 mg/L	96.4	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4046947)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	111	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	103	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	103	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	114	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	105	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4046948)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	115	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	91.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	101	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	98.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	103	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4047464)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	98.6	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	81.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	84.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	85.4	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	90.8	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	80.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4047739)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	110	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	90.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	93.4	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	93.0	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	91.2	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	89.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4046947)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	96.2	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	115	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	119	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	113	69.0	130

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4046947) - continued								
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	123	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	112	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	100	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	97.6	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4046948)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	90.3	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	108	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	114	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	118	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	106	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	118	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	113	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	108	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	98.2	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4047464)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	89.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	90.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	95.2	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	101	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	96.2	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	99.4	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	93.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	90.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	88.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	92.1	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4047739)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	88.8	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	111	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	110	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	113	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	100	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	133

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4047739) - continued								
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	111	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	109	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	91.4	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4046947)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	96.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	97.5	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	106	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	95.9	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	103	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	111	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	121	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4046948)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	101	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	80.9	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	83.1	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	95.0	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	100	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	112	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	117	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4047464)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	85.2	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	97.6	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	99.1	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	80.7	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	112	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	94.4	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.2	61.0	135

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4047739)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	94.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	85.4	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	87.6	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	87.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	92.0	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	98.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	107	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4046947)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	118	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	108	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	121	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	103	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4046948)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	101	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	109	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	100	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	82.2	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4047464)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	90.2	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	88.4	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	119	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	93.4	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4047739)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	95.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	90.6	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	110	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	113	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
				Concentration	MS	Low	High

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4045649)							
ES2142974-052	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	107	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	94.0	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	84.4	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	86.0	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	86.4	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	86.0	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4045651)							
ES2143118-045	0902_SD014_211125	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	107	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	99.6	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	104	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	107	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	# Not Determined	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	124	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4045649)							
ES2142974-052	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	79.4	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	86.4	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	111	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	104	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	97.2	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	98.0	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	100	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	99.2	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	97.6	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	73.6	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	86.4	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4045651)							
ES2143118-045	0902_SD014_211125	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	100	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	124	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	111	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	116	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	102	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	113	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	109	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	110	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	111	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	97.2	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	99.2	69.0	133

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4045649)							
ES2142974-052	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	91.6	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	76.6	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	83.2	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	78.8	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	91.2	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	82.0	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	102	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4045651)							
ES2143118-045	0902_SD014_211125	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	97.6	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	101	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	105	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	97.1	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	104	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	122	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	109	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4045649)							
ES2142974-052	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	96.8	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	83.2	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	101	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	76.0	69.2	143
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4045651)							
ES2143118-045	0902_SD014_211125	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	106	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	106	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	104	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	108	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4041264)							
ES2143118-026	0902_MW075_211125	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	10 mg/L	113	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4041263)							
ES2143118-026	0902_MW075_211125	ED045G: Chloride	16887-00-6	50 mg/L	111	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 4044436)							
ES2142377-004	Anonymous	EG020A-F: Manganese	7439-96-5	1 mg/L	90.1	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 4047095)							
EB2134067-046	Anonymous	EG020A-F: Manganese	7439-96-5	1 mg/L	112	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4045742)							
ES2143118-026	0902_MW075_211125	EK055G: Ammonia as N	7664-41-7	1 mg/L	96.7	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4041262)							
ES2143115-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	114	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4045741)							
ES2143118-026	0902_MW075_211125	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	# Not Determined	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4045743)							
ES2143118-032	0902_MW082_211125	EK067G: Total Phosphorus as P	----	1 mg/L	98.4	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4046947)							
ES2143118-002	0902_MW005_211125	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	98.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	79.6	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	95.4	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	92.3	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	110	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	90.1	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4046948)							
ES2143118-022	0902_MW061_211124	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	122	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	79.5	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	102	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	108	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	132	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	113	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4047464)							
ES2143118-041	0902_MW117_211125	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	# Not Determined	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	# Not Determined	71.0	127

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4047464) - continued							
ES2143118-041	0902_MW117_211125	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	# Not Determined	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	# Not Determined	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	# Not Determined	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	127	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4047739)							
ES2143118-064	0902_SW001_211126	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	94.8	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	87.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	# Not Determined	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	98.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	# Not Determined	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	82.8	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4046947)							
ES2143118-002	0902_MW005_211125	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	87.7	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	96.8	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	106	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	99.4	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	104	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	96.2	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	111	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	99.8	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	98.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	84.0	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	85.0	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4046948)							
ES2143118-022	0902_MW061_211124	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	89.0	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	124	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	101	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	124	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	125	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	117	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	120	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	116	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	109	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	109	65.0	144

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4046948) - continued							
ES2143118-022	0902_MW061_211124	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	106	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4047464)							
ES2143118-041	0902_MW117_211125	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	108	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	# Not Determined	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	# Not Determined	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	# Not Determined	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	# Not Determined	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	98.6	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	107	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	100	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	99.8	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	86.2	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	99.1	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4047739)							
ES2143118-064	0902_SW001_211126	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	86.2	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	125	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	105	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	130	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	124	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	121	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	118	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	115	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	114	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	111	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	91.3	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4046947)							
ES2143118-002	0902_MW005_211125	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	86.6	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	94.1	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	95.8	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	84.6	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	80.3	57.6	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4046947) - continued							
ES2143118-002	0902_MW005_211125	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	95.8	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	109	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4046948)							
ES2143118-022	0902_MW061_211124	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	112	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	109	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	96.6	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	117	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	116	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	110	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4047464)							
ES2143118-041	0902_MW117_211125	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	92.8	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	85.0	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	102	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	96.2	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	85.3	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	95.4	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	114	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4047739)							
ES2143118-064	0902_SW001_211126	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	88.6	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	88.7	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	86.8	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	86.3	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	93.5	57.6	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4047739) - continued							
ES2143118-064	0902_SW001_211126	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	103	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	104	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4046947)							
ES2143118-002	0902_MW005_211125	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	96.4	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	107	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	113	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	86.0	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4046948)							
ES2143118-022	0902_MW061_211124	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	103	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	112	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	106	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	85.2	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4047464)							
ES2143118-041	0902_MW117_211125	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	95.4	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	116	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	110	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	99.8	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4047739)							
ES2143118-064	0902_SW001_211126	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	85.2	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	106	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	105	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	79.0	71.4	144

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2143118**	Page	: 1 of 20
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 26-Nov-2021
Site	: Richmond	Issue Date	: 06-Dec-2021
Sampler	: ANDREW SPOOR, AYRTON DONEGAN	No. of samples received	: 67
Order number	: 60612562_5.1	No. of samples analysed	: 66

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2143118--045	0902_SD014_211125	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Ar	ES2143118--026	0902_MW075_211125	**Nitrite + Nitrate as N**	----	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2143118--041	0902_MW117_211125	**Perfluorobutane sulfonic acid (PFBS)**	375-73-5	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2143118--041	0902_MW117_211125	**Perfluoropentane sulfonic acid (PFPeS)**	2706-91-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2143118--041	0902_MW117_211125	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2143118--064	0902_SW001_211126	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2143118--041	0902_MW117_211125	**Perfluoroheptane sulfonic acid (PFHpS)**	375-92-8	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2143118--041	0902_MW117_211125	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2143118--064	0902_SW001_211126	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2143118--041	0902_MW117_211125	**Perfluoropentanoic acid (PFPeA)**	2706-90-3	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2143118--041	0902_MW117_211125	**Perfluorohexanoic acid (PFHxA)**	307-24-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2143118--041	0902_MW117_211125	**Perfluoroheptanoic acid (PFHpA)**	375-85-9	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries - Continued							
EP231B: Perfluoroalkyl Carboxylic Acids	ES2143118--041	0902_MW117_211125	**Perfluorooctanoic acid (PFOA)**	335-67-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Frequency of Quality Control Samples

Matrix: **SOIL**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Moisture Content	1	12	8.33	10.00	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Major Cations - Dissolved	2	27	7.41	10.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container / Client Sample ID(s)*	*Sample Date*	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0902_SD005_211125, 0902_SD014_211125, 0902_SD023_211125, 0902_SD035_211125, 0902_QC109_211125	**25-Nov-2021**	**----**	----	----	**02-Dec-2021**	09-Dec-2021	✓
HDPE Soil Jar (EA055)							
0902_SD001_211126, 0902_SD024_211126	**26-Nov-2021**	**----**	----	----	**02-Dec-2021**	10-Dec-2021	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0902_SD005_211125, 0902_SD014_211125, 0902_SD023_211125, 0902_SD035_211125, 0902_QC109_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	10-Jan-2022	✓
HDPE Soil Jar (EP231X)							
0902_SD001_211126, 0902_SD024_211126	**26-Nov-2021**	**01-Dec-2021**	25-May-2022	✓	**03-Dec-2021**	10-Jan-2022	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0902_SD005_211125, 0902_SD014_211125, 0902_SD023_211125, 0902_SD035_211125, 0902_QC109_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	10-Jan-2022	✓
HDPE Soil Jar (EP231X)							
0902_SD001_211126, 0902_SD024_211126	**26-Nov-2021**	**01-Dec-2021**	25-May-2022	✓	**03-Dec-2021**	10-Jan-2022	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0902_SD005_211125, 0902_SD014_211125, 0902_SD023_211125, 0902_SD035_211125, 0902_QC109_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	10-Jan-2022	✓
HDPE Soil Jar (EP231X)							
0902_SD001_211126, 0902_SD024_211126	**26-Nov-2021**	**01-Dec-2021**	25-May-2022	✓	**03-Dec-2021**	10-Jan-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0902_SD005_211125, 0902_SD014_211125, 0902_SD023_211125, 0902_SD035_211125, 0902_QC109_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	10-Jan-2022	✓
HDPE Soil Jar (EP231X)							
0902_SD001_211126, 0902_SD024_211126	**26-Nov-2021**	**01-Dec-2021**	25-May-2022	✓	**03-Dec-2021**	10-Jan-2022	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0902_SD005_211125, 0902_SD014_211125, 0902_SD023_211125, 0902_SD035_211125, 0902_QC109_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	10-Jan-2022	✓
HDPE Soil Jar (EP231X)							
0902_SD001_211126, 0902_SD024_211126	**26-Nov-2021**	**01-Dec-2021**	25-May-2022	✓	**03-Dec-2021**	10-Jan-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED037P: Alkalinity by PC Titrator							
Clear Plastic Bottle - Natural (ED037-P)							
0902_MW075_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125	**25-Nov-2021**	**----**	----	----	**29-Nov-2021**	09-Dec-2021	✓
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA							
Clear Plastic Bottle - Natural (ED041G)							
0902_MW075_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125	**25-Nov-2021**	**----**	----	----	**27-Nov-2021**	23-Dec-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED045G: Chloride by Discrete Analyser							
Clear Plastic Bottle - Natural (ED045G)							
0902_MW075_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125	**25-Nov-2021**	**----**	----	----	**27-Nov-2021**	23-Dec-2021	✓
ED093F: Dissolved Major Cations							
Clear Plastic Bottle - Nitric Acid; Filtered (ED093F)							
0902_MW075_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125	**25-Nov-2021**	**----**	----	----	**30-Nov-2021**	23-Dec-2021	✓
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
0902_QC300_211122	**22-Nov-2021**	**----**	----	----	**01-Dec-2021**	21-May-2022	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
0902_QC301_211123	**23-Nov-2021**	**----**	----	----	**01-Dec-2021**	22-May-2022	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
0902_QC302_211124	**24-Nov-2021**	**----**	----	----	**01-Dec-2021**	23-May-2022	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
0902_QC303_211125	**25-Nov-2021**	**----**	----	----	**01-Dec-2021**	24-May-2022	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
0902_MW075_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125	**25-Nov-2021**	**----**	----	----	**30-Nov-2021**	24-May-2022	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
0902_QC304_211126	**26-Nov-2021**	**----**	----	----	**01-Dec-2021**	25-May-2022	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_MW075_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125	**25-Nov-2021**	**----**	----	----	**30-Nov-2021**	23-Dec-2021	✓
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G)							
0902_MW075_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125	**25-Nov-2021**	**----**	----	----	**27-Nov-2021**	27-Nov-2021	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW075_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125	**25-Nov-2021**	**----**	----	----	**30-Nov-2021**	23-Dec-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_MW075_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125	**25-Nov-2021**	**30-Nov-2021**	23-Dec-2021	✓	**30-Nov-2021**	23-Dec-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0902_QC300_211122	**22-Nov-2021**	**01-Dec-2021**	21-May-2022	✓	**03-Dec-2021**	21-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW107D_211123, 0902_MW107I_211123, 0902_MW108_211123	**23-Nov-2021**	**01-Dec-2021**	22-May-2022	✓	**02-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW030_211123, 0902_QC104_211123, 0902_QC105_211123, 0902_QC301_211123	**23-Nov-2021**	**01-Dec-2021**	22-May-2022	✓	**03-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW024_211123, 0902_MW027_211123, 0902_MW047_211123, 0902_MW048_211123, 0902_MW050_211123, 0902_MW051_211123, 0902_MW052_211123	**23-Nov-2021**	**02-Dec-2021**	22-May-2022	✓	**03-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW060_211124, 0902_MW061_211124, 0902_MW072_211124, 0902_MW073_211124, 0902_MW074_211124, 0902_MW079_211124, 0902_MW080_211124, 0902_MW106_211124	**24-Nov-2021**	**01-Dec-2021**	23-May-2022	✓	**02-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC106_211124, 0902_QC107_211124, 0902_QC302_211124	**24-Nov-2021**	**01-Dec-2021**	23-May-2022	✓	**03-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW020_211124, 0902_MW021_211124, 0902_MW032_211124, 0902_MW033_211124, 0902_MW034_211124, 0902_MW053_211124, 0902_MW054_211124, 0902_MW056_211124, 0902_MW057_211124, 0902_MW058_211124	**24-Nov-2021**	**02-Dec-2021**	23-May-2022	✓	**03-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW075_211125, 0902_MW076_211125, 0902_MW077_211125, 0902_MW078_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_MW092_211125, 0902_MW111_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**02-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW112_211125, 0902_MW117_211125, 0902_MW118_211125, 0902_MW119_211125, 0902_SW005_211125, 0902_SW014_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125, 0902_QC303_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW004_211125, 0902_MW005_211125	**25-Nov-2021**	**02-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC304_211126	**26-Nov-2021**	**01-Dec-2021**	25-May-2022	✓	**03-Dec-2021**	25-May-2022	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued							
0902_SW001_211126, 0902_SW024_211126	**26-Nov-2021**	**02-Dec-2021**	25-May-2022	✓	**02-Dec-2021**	25-May-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) 0902_QC300_211122	**22-Nov-2021**	**01-Dec-2021**	21-May-2022	✓	**03-Dec-2021**	21-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW107D_211123, 0902_MW107I_211123, 0902_MW108_211123	**23-Nov-2021**	**01-Dec-2021**	22-May-2022	✓	**02-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW030_211123, 0902_QC104_211123, 0902_QC105_211123, 0902_QC301_211123	**23-Nov-2021**	**01-Dec-2021**	22-May-2022	✓	**03-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW024_211123, 0902_MW027_211123, 0902_MW047_211123, 0902_MW048_211123, 0902_MW050_211123, 0902_MW051_211123, 0902_MW052_211123	**23-Nov-2021**	**02-Dec-2021**	22-May-2022	✓	**03-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW060_211124, 0902_MW061_211124, 0902_MW072_211124, 0902_MW073_211124, 0902_MW074_211124, 0902_MW079_211124, 0902_MW080_211124, 0902_MW106_211124	**24-Nov-2021**	**01-Dec-2021**	23-May-2022	✓	**02-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC106_211124, 0902_QC107_211124, 0902_QC302_211124	**24-Nov-2021**	**01-Dec-2021**	23-May-2022	✓	**03-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW020_211124, 0902_MW021_211124, 0902_MW032_211124, 0902_MW033_211124, 0902_MW034_211124, 0902_MW053_211124, 0902_MW054_211124, 0902_MW056_211124, 0902_MW057_211124, 0902_MW058_211124	**24-Nov-2021**	**02-Dec-2021**	23-May-2022	✓	**03-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW075_211125, 0902_MW076_211125, 0902_MW077_211125, 0902_MW078_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_MW092_211125, 0902_MW111_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**02-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW112_211125, 0902_MW117_211125, 0902_MW118_211125, 0902_MW119_211125, 0902_SW005_211125, 0902_SW014_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125, 0902_QC303_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW004_211125, 0902_MW005_211125	**25-Nov-2021**	**02-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC304_211126	**26-Nov-2021**	**01-Dec-2021**	25-May-2022	✓	**03-Dec-2021**	25-May-2022	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids - Continued							
0902_SW001_211126, 0902_SW024_211126	**26-Nov-2021**	**02-Dec-2021**	25-May-2022	✓	**02-Dec-2021**	25-May-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0902_QC300_211122	**22-Nov-2021**	**01-Dec-2021**	21-May-2022	✓	**03-Dec-2021**	21-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW107D_211123, 0902_MW107I_211123, 0902_MW108_211123	**23-Nov-2021**	**01-Dec-2021**	22-May-2022	✓	**02-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW030_211123, 0902_QC104_211123, 0902_QC105_211123, 0902_QC301_211123	**23-Nov-2021**	**01-Dec-2021**	22-May-2022	✓	**03-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW024_211123, 0902_MW027_211123, 0902_MW047_211123, 0902_MW048_211123, 0902_MW050_211123, 0902_MW051_211123, 0902_MW052_211123	**23-Nov-2021**	**02-Dec-2021**	22-May-2022	✓	**03-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW060_211124, 0902_MW061_211124, 0902_MW072_211124, 0902_MW073_211124, 0902_MW074_211124, 0902_MW079_211124, 0902_MW080_211124, 0902_MW106_211124	**24-Nov-2021**	**01-Dec-2021**	23-May-2022	✓	**02-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC106_211124, 0902_QC107_211124, 0902_QC302_211124	**24-Nov-2021**	**01-Dec-2021**	23-May-2022	✓	**03-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW020_211124, 0902_MW021_211124, 0902_MW032_211124, 0902_MW033_211124, 0902_MW034_211124, 0902_MW053_211124, 0902_MW054_211124, 0902_MW056_211124, 0902_MW057_211124, 0902_MW058_211124	**24-Nov-2021**	**02-Dec-2021**	23-May-2022	✓	**03-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW075_211125, 0902_MW076_211125, 0902_MW077_211125, 0902_MW078_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_MW092_211125, 0902_MW111_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**02-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW112_211125, 0902_MW117_211125, 0902_MW118_211125, 0902_MW119_211125, 0902_SW005_211125, 0902_SW014_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125, 0902_QC303_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW004_211125, 0902_MW005_211125	**25-Nov-2021**	**02-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC304_211126	**26-Nov-2021**	**01-Dec-2021**	25-May-2022	✓	**03-Dec-2021**	25-May-2022	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides - Continued							
0902_SW001_211126, 0902_SW024_211126	**26-Nov-2021**	**02-Dec-2021**	25-May-2022	✓	**02-Dec-2021**	25-May-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_QC300_211122	**22-Nov-2021**	**01-Dec-2021**	21-May-2022	✓	**03-Dec-2021**	21-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW107D_211123, 0902_MW107I_211123, 0902_MW108_211123	**23-Nov-2021**	**01-Dec-2021**	22-May-2022	✓	**02-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW030_211123, 0902_QC104_211123, 0902_QC105_211123, 0902_QC301_211123	**23-Nov-2021**	**01-Dec-2021**	22-May-2022	✓	**03-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW024_211123, 0902_MW027_211123, 0902_MW047_211123, 0902_MW048_211123, 0902_MW050_211123, 0902_MW051_211123, 0902_MW052_211123	**23-Nov-2021**	**02-Dec-2021**	22-May-2022	✓	**03-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW060_211124, 0902_MW061_211124, 0902_MW072_211124, 0902_MW073_211124, 0902_MW074_211124, 0902_MW079_211124, 0902_MW080_211124, 0902_MW106_211124	**24-Nov-2021**	**01-Dec-2021**	23-May-2022	✓	**02-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_QC106_211124, 0902_QC107_211124, 0902_QC302_211124	**24-Nov-2021**	**01-Dec-2021**	23-May-2022	✓	**03-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW020_211124, 0902_MW021_211124, 0902_MW032_211124, 0902_MW033_211124, 0902_MW034_211124, 0902_MW053_211124, 0902_MW054_211124, 0902_MW056_211124, 0902_MW057_211124, 0902_MW058_211124	**24-Nov-2021**	**02-Dec-2021**	23-May-2022	✓	**03-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW075_211125, 0902_MW076_211125, 0902_MW077_211125, 0902_MW078_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_MW092_211125, 0902_MW111_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**02-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW112_211125, 0902_MW117_211125, 0902_MW118_211125, 0902_MW119_211125, 0902_SW005_211125, 0902_SW014_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125, 0902_QC303_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW004_211125, 0902_MW005_211125	**25-Nov-2021**	**02-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X)							
0902_QC304_211126	**26-Nov-2021**	**01-Dec-2021**	25-May-2022	✓	**03-Dec-2021**	25-May-2022	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued							
0902_SW001_211126, 0902_SW024_211126	**26-Nov-2021**	**02-Dec-2021**	25-May-2022	✓	**02-Dec-2021**	25-May-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X) 0902_QC300_211122	**22-Nov-2021**	**01-Dec-2021**	21-May-2022	✓	**03-Dec-2021**	21-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW107D_211123, 0902_MW107I_211123, 0902_MW108_211123	**23-Nov-2021**	**01-Dec-2021**	22-May-2022	✓	**02-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW030_211123, 0902_QC104_211123, 0902_QC105_211123, 0902_QC301_211123	**23-Nov-2021**	**01-Dec-2021**	22-May-2022	✓	**03-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW024_211123, 0902_MW027_211123, 0902_MW047_211123, 0902_MW048_211123, 0902_MW050_211123, 0902_MW051_211123, 0902_MW052_211123	**23-Nov-2021**	**02-Dec-2021**	22-May-2022	✓	**03-Dec-2021**	22-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW060_211124, 0902_MW061_211124, 0902_MW072_211124, 0902_MW073_211124, 0902_MW074_211124, 0902_MW079_211124, 0902_MW080_211124, 0902_MW106_211124	**24-Nov-2021**	**01-Dec-2021**	23-May-2022	✓	**02-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC106_211124, 0902_QC107_211124, 0902_QC302_211124	**24-Nov-2021**	**01-Dec-2021**	23-May-2022	✓	**03-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW020_211124, 0902_MW021_211124, 0902_MW032_211124, 0902_MW033_211124, 0902_MW034_211124, 0902_MW053_211124, 0902_MW054_211124, 0902_MW056_211124, 0902_MW057_211124, 0902_MW058_211124	**24-Nov-2021**	**02-Dec-2021**	23-May-2022	✓	**03-Dec-2021**	23-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW075_211125, 0902_MW076_211125, 0902_MW077_211125, 0902_MW078_211125, 0902_MW082_211125, 0902_MW091_211125, 0902_MW092_211125, 0902_MW111_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**02-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW112_211125, 0902_MW117_211125, 0902_MW118_211125, 0902_MW119_211125, 0902_SW005_211125, 0902_SW014_211125, 0902_SW023_211125, 0902_SW035_211125, 0902_QC108_211125, 0902_QC303_211125	**25-Nov-2021**	**01-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW004_211125, 0902_MW005_211125	**25-Nov-2021**	**02-Dec-2021**	24-May-2022	✓	**03-Dec-2021**	24-May-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC304_211126	**26-Nov-2021**	**01-Dec-2021**	25-May-2022	✓	**03-Dec-2021**	25-May-2022	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums - Continued							
0902_SW001_211126, 0902_SW024_211126	**26-Nov-2021**	**02-Dec-2021**	25-May-2022	✓	**02-Dec-2021**	25-May-2022	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	12	**8.33**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	38	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	38	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	38	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	38	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Alkalinity by PC Titrator	ED037-P	4	38	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	2	13	**15.38**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	10	**20.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	4	37	**10.81**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	27	**7.41**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	17	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	8	75	**10.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	14	**14.29**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by PC Titrator	ED037-P	4	38	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	10	**20.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	27	**7.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	75	**5.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	14	**14.29**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	18	**16.67**	**15.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Method Blanks (MB) - Continued							
Chloride by Discrete Analyser	ED045G	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	27	**7.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	75	**5.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	14	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	75	**5.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	14	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Alkalinity by PC Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. PC Titrate) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G.The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride.in the presence of ferric ions the librated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm APHA seal method 2 017-1-L
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030F. This method is compliant with NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

CHAIN OF CUSTODY

ALS COC#: **30345** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/11/21 3:48	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW001_211129		29/11/2021 12:19 PM	Water	ALS: 7 Non ALS: 0	No		X	X	additional NT-01 and NT-02	
002	0902_MW002_211129		29/11/2021 11:40 AM	Water	ALS: 4 Non ALS: 0	No		X			
003	0902_MW012_211129		29/11/2021 02:24 PM	Water	ALS: 4 Non ALS: 0	No		X			
004	0902_MW013_211129		29/11/2021 02:52 PM	Water	ALS: 4 Non ALS: 0	No		X			
005	0902_MW014_211129		29/11/2021 03:13 PM	Water	ALS: 4 Non ALS: 0	No		X			
006	0902_MW015_211129		29/11/2021 03:21 PM	Water	ALS: 4 Non ALS: 0	No		X			
007	0902_MW016_211129		29/11/2021 10:56 AM	Water	ALS: 4 Non ALS: 0	No		X			
008	0902_MW017_211129		29/11/2021 03:02 PM	Water	ALS: 4 Non ALS: 0	No		X			
009	0902_SW022_211129		29/11/2021 05:04 PM	Water	ALS: 0 Non ALS: 0	No		X	X	bottles didn't scan. please analyse as per COC and additional NT-01 and NT-02	

Environmental Division Sydney

Work Order Reference

ES2143536

Telephone : +61-2-8784 8555

Monday, November 29, 2021 10:08:40 PM

CHAIN OF CUSTODY

ALS COC#: 30345 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/11/21 3.29	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 02 °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_MW030_211129		29/11/2021 05:39 PM	Water	ALS: 0 Non ALS: 0	No		X		bottle didn't scan. just PFAS	
011	0902_MW059_211129		29/11/2021 04:51 PM	Water	ALS: 4 Non ALS: 0	No		X			
012	0902_MW081_211129		29/11/2021 08:22 AM	Water	ALS: 7 Non ALS: 0	No		X	X	additional NT-01 and NT-02	
013	0902_MW095_211129		29/11/2021 01:17 PM	Water	ALS: 8 Non ALS: 0	No		X	X	additional NT-01 and NT-02	
014	0902_MW097_211126		29/11/2021 09:42 AM	Water	ALS: 8 Non ALS: 0	No		X	X	additional NT-01 and NT-02	
015	0902_MW098_211129		29/11/2021 09:06 AM	Water	ALS: 8 Non ALS: 0	No		X	X	additional NT-01 and NT-02	
016	0902_MW113_211129		29/11/2021 11:38 AM	Water	ALS: 4 Non ALS: 0	No		X			
017	0902_MW114_211129		29/11/2021 12:24 PM	Water	ALS: 4 Non ALS: 0	No		X			
018	0902_SW002_211129		29/11/2021 10:01 AM	Water	ALS: 4 Non ALS: 0	No		X			

CHAIN OF CUSTODY

ALS COC#: 30345 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/11/21 3:44	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 6.2 °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0902_SD003_211129		29/11/2021 10:27 AM	Soil	ALS: 1 Non ALS: 0	No	X				
020	0902_SD007_211129		29/11/2021 11:55 AM	Soil	ALS: 1 Non ALS: 0	No	X				
021	0902_SD008_211129		29/11/2021 12:43 PM	Soil	ALS: 1 Non ALS: 0	No	X				
022	0902_SD009_211129		29/11/2021 01:08 PM	Soil	ALS: 1 Non ALS: 0	No	X				
023	0902_SD011_211129		29/11/2021 03:33 PM	Soil	ALS: 1 Non ALS: 0	No	X				
024	0902_SD013_211129		29/11/2021 02:42 PM	Soil	ALS: 1 Non ALS: 0	No	X				
025	0902_SD015_211129		29/11/2021 09:08 AM	Soil	ALS: 1 Non ALS: 0	No	X				
026	0902_SD016_211129		29/11/2021 09:41 AM	Soil	ALS: 1 Non ALS: 0	No	X				
027	0902_SD018_211129		29/11/2021 03:57 PM	Soil	ALS: 1 Non ALS: 0	No	X				

CHAIN OF CUSTODY

ALS COC#: 30345 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	FADY DATE TIME: 30/11/21 1545	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0-2 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
028	0902_SD019_211129		29/11/2021 03:43 PM	Soil	ALS: 1 Non ALS: 0	No	X				
029	0902_SD020_211129		29/11/2021 04:26 PM	Soil	ALS: 1 Non ALS: 0	No	X				
030	0902_SD022_211129		29/11/2021 08:23 AM	Soil	ALS: 1 Non ALS: 0	No	X				
031	0902_SD030_211129		29/11/2021 05:39 PM	Soil	ALS: 0 Non ALS: 0	No	X			bottle didn't scan, please as per COC	
032	0902_SD002_211129		29/11/2021 10:03 AM	Soil	ALS: 1 Non ALS: 0	No	X				
033	0902_SW003_211129		29/11/2021 10:26 AM	Water	ALS: 8 Non ALS: 0	No		X	X	additional NT-01 and NT-02	
034	0902_SW007_211129		29/11/2021 11:56 AM	Water	ALS: 4 Non ALS: 0	No		X			
035	0902_SW008_211129		29/11/2021 12:47 PM	Water	ALS: 7 Non ALS: 0	No		X	X	additional NT-01 and NT-02	
036	0902_SW009_211129		29/11/2021 01:06 PM	Water	ALS: 8 Non ALS: 0	No		X	X	additional NT-01 and NT-02	

CHAIN OF CUSTODY

ALS COC#: 30345 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/11/21 3:42	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Ayrton Donegan QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
037	0902_SW011_211129		29/11/2021 03:34 PM	Water	ALS: 4 Non ALS: 0	No		X			
038	0902_SW013_211129		29/11/2021 02:43 PM	Water	ALS: 4 Non ALS: 0	No		X			
039	0902_SW015_211129		29/11/2021 09:08 AM	Water	ALS: 7 Non ALS: 0	No		X	X	additional NT-01 and NT-02	
040	0902_SW016_211129		29/11/2021 09:41 AM	Water	ALS: 7 Non ALS: 0	No		X	X	additional NT-01 and NT-02	
041	0902_SW018_211129		29/11/2021 03:57 PM	Water	ALS: 4 Non ALS: 0	No		X			
042	0902_SW019_211129		29/11/2021 03:42 PM	Water	ALS: 4 Non ALS: 0	No		X			
043	0902_SW020_211129		29/11/2021 04:25 PM	Water	ALS: 8 Non ALS: 0	No		X	X	additional NT-01 and NT-02	
044	0902_SW037_211129		29/11/2021 10:28 AM	Water	ALS: 4 Non ALS: 0	No		X			
045	0902_SW022_211129		29/11/2021 08:24 AM	Water	ALS: 8 Non ALS: 0	No		X	X	additional NT-01 and NT-02	

CHAIN OF CUSTODY

ALS COC#: 30345 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/11/21 3:44	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Ayrton Donegan QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
046	0902_QC110_211129		29/11/2021 10:57 AM	Water	ALS: 4 Non ALS: 0	No		X			
047	0902_QC111_211129		29/11/2021 11:58 AM	Soil	ALS: 1 Non ALS: 0	No	X				
048	0902_QC112_211129		29/11/2021 12:22 PM	Water	ALS: 4 Non ALS: 0	No		X			
049	0902_QC114_211129		29/11/2021 12:43 PM	Soil	ALS: 1 Non ALS: 0	No	X				
050	0902_QC113_211129		29/11/2021 12:45 PM	Water	ALS: 7 Non ALS: 0	No		X	X	additional NT-01 and NT-02	
051	0902_QC115_211129		29/11/2021 02:44 PM	Water	ALS: 4 Non ALS: 0	No		X			
052	0902_QC305_211129		29/11/2021 05:15 PM	Water	ALS: 5 Non ALS: 0	No		X	X	please just PFAS and metals	

CHAIN OF CUSTODY

ALS COC#: 30345 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/4/21 3:48	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 6.2 °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW001_211129	Clear Plastic Bottle - Natural	500 mL	00070121090834	Green	No	
001	0902_MW001_211129	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020081709	Purple	No	
001	0902_MW001_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019109	Red	Yes	
001	0902_MW001_211129	HDPE (no PTFE)	20 mL	00350621065353	Grey	No	
001	0902_MW001_211129	HDPE (no PTFE)	20 mL	00350621038801	Grey	No	
001	0902_MW001_211129	HDPE (no PTFE)	20 mL	00350621065466	Grey	No	
001	0902_MW001_211129	HDPE (no PTFE)	20 mL	00350621065328	Grey	No	
002	0902_MW002_211129	HDPE (no PTFE)	20 mL	00350621065415	Grey	No	
002	0902_MW002_211129	HDPE (no PTFE)	20 mL	00350621065300	Grey	No	
002	0902_MW002_211129	HDPE (no PTFE)	20 mL	00350621065371	Grey	No	
002	0902_MW002_211129	HDPE (no PTFE)	20 mL	00350621065339	Grey	No	
003	0902_MW012_211129	HDPE (no PTFE)	20 mL	00350621064282	Grey	No	
003	0902_MW012_211129	HDPE (no PTFE)	20 mL	00350621064300	Grey	No	
003	0902_MW012_211129	HDPE (no PTFE)	20 mL	00350621064159	Grey	No	
003	0902_MW012_211129	HDPE (no PTFE)	20 mL	00350621064234	Grey	No	
004	0902_MW013_211129	HDPE (no PTFE)	20 mL	00350621064213	Grey	No	
004	0902_MW013_211129	HDPE (no PTFE)	20 mL	00350621064134	Grey	No	
004	0902_MW013_211129	HDPE (no PTFE)	20 mL	00350621064238	Grey	No	
004	0902_MW013_211129	HDPE (no PTFE)	20 mL	00350621064109	Grey	No	
005	0902_MW014_211129	HDPE (no PTFE)	20 mL	00350621064204	Grey	No	
005	0902_MW014_211129	HDPE (no PTFE)	20 mL	00350621064122	Grey	No	
005	0902_MW014_211129	HDPE (no PTFE)	20 mL	00350621064275	Grey	No	
005	0902_MW014_211129	HDPE (no PTFE)	20 mL	00350621064130	Grey	No	
006	0902_MW015_211129	HDPE (no PTFE)	20 mL	00350621064352	Grey	No	
006	0902_MW015_211129	HDPE (no PTFE)	20 mL	00350621064255	Grey	No	
006	0902_MW015_211129	HDPE (no PTFE)	20 mL	00350621064341	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 30345 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/11/21 3:45	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0-2 °C

Other comments:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Ayrton Donegan QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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006	0902_MW015_211129	HDPE (no PTFE)	20 mL	00350621064088	Grey	No	
007	0902_MW016_211129	HDPE (no PTFE)	20 mL	00350621065291	Grey	No	
007	0902_MW016_211129	HDPE (no PTFE)	20 mL	00350621065457	Grey	No	
007	0902_MW016_211129	HDPE (no PTFE)	20 mL	00350621065346	Grey	No	
007	0902_MW016_211129	HDPE (no PTFE)	20 mL	00350621038751	Grey	No	
008	0902_MW017_211129	HDPE (no PTFE)	20 mL	00350621064172	Grey	No	
008	0902_MW017_211129	HDPE (no PTFE)	20 mL	00350621064205	Grey	No	
008	0902_MW017_211129	HDPE (no PTFE)	20 mL	00350621064347	Grey	No	
008	0902_MW017_211129	HDPE (no PTFE)	20 mL	00350621064333	Grey	No	
011	0902_MW059_211129	HDPE (no PTFE)	20 mL	00350621064209	Grey	No	
011	0902_MW059_211129	HDPE (no PTFE)	20 mL	00350621064336	Grey	No	
011	0902_MW059_211129	HDPE (no PTFE)	20 mL	00350621064307	Grey	No	
011	0902_MW059_211129	HDPE (no PTFE)	20 mL	00350621064180	Grey	No	
012	0902_MW081_211129	Clear Plastic Bottle - Natural	500 mL	00070121090827	Green	No	
012	0902_MW081_211129	HDPE (no PTFE)	20 mL	00350621064247	Grey	No	
012	0902_MW081_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821005728	Red	No	
012	0902_MW081_211129	HDPE (no PTFE)	20 mL	00350621064287	Grey	No	
012	0902_MW081_211129	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020077618	Purple	No	
012	0902_MW081_211129	HDPE (no PTFE)	20 mL	00350621064162	Grey	No	
012	0902_MW081_211129	HDPE (no PTFE)	20 mL	00350621064139	Grey	No	
013	0902_MW095_211129	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020077714	Purple	No	
013	0902_MW095_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019238	Red	Yes	
013	0902_MW095_211129	Clear Plastic Bottle - Natural	500 mL	00070621190458	Green	No	
013	0902_MW095_211129	Clear Plastic Bottle - Natural	500 mL	00070621190771	Green	No	
013	0902_MW095_211129	HDPE (no PTFE)	20 mL	00350621064182	Grey	No	
013	0902_MW095_211129	HDPE (no PTFE)	20 mL	00350621064087	Grey	No	
013	0902_MW095_211129	HDPE (no PTFE)	20 mL	00350621064110	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 30345 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/11/21 3:45	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins
PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? (Yes) No N/A

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

013	0902_MW095_211129	HDPE (no PTFE)	20 mL	00350621064169	Grey	No	
014	0902_MW097_211126	Clear Plastic Bottle - Natural	500 mL	00070621190869	Green	No	
014	0902_MW097_211126	Clear Plastic Bottle - Natural	500 mL	00070621190862	Green	No	
014	0902_MW097_211126	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019140	Red	Yes	
014	0902_MW097_211126	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020081804	Purple	No	
014	0902_MW097_211126	HDPE (no PTFE)	20 mL	00350621064345	Grey	No	
014	0902_MW097_211126	HDPE (no PTFE)	20 mL	00350621064073	Grey	No	
014	0902_MW097_211126	HDPE (no PTFE)	20 mL	00350621064229	Grey	No	
014	0902_MW097_211126	HDPE (no PTFE)	20 mL	00350621064158	Grey	No	
015	0902_MW098_211129	Clear Plastic Bottle - Natural	500 mL	00070621190856	Green	No	
015	0902_MW098_211129	Clear Plastic Bottle - Natural	500 mL	00070621190833	Green	No	
015	0902_MW098_211129	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020077596	Purple	No	
015	0902_MW098_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019264	Red	Yes	
015	0902_MW098_211129	HDPE (no PTFE)	20 mL	00350621064167	Grey	No	
015	0902_MW098_211129	HDPE (no PTFE)	20 mL	00350621064268	Grey	No	
015	0902_MW098_211129	HDPE (no PTFE)	20 mL	00350621064245	Grey	No	
015	0902_MW098_211129	HDPE (no PTFE)	20 mL	00350621064360	Grey	No	
016	0902_MW113_211129	HDPE (no PTFE)	20 mL	00350621065456	Grey	No	
016	0902_MW113_211129	HDPE (no PTFE)	20 mL	00350621038816	Grey	No	
016	0902_MW113_211129	HDPE (no PTFE)	20 mL	00350621038817	Grey	No	
016	0902_MW113_211129	HDPE (no PTFE)	20 mL	00350621038802	Grey	No	
017	0902_MW114_211129	HDPE (no PTFE)	20 mL	00350621038780	Grey	No	
017	0902_MW114_211129	HDPE (no PTFE)	20 mL	00350621065432	Grey	No	
017	0902_MW114_211129	HDPE (no PTFE)	20 mL	00350621038752	Grey	No	
017	0902_MW114_211129	HDPE (no PTFE)	20 mL	00350621038806	Grey	No	
018	0902_SW002_211129	HDPE (no PTFE)	20 mL	00350621064335	Grey	No	
018	0902_SW002_211129	HDPE (no PTFE)	20 mL	00350621064119	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: **30345** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/11/21 3:45	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0-2 °C

Other comments:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Ayrton Donegan QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

018	0902_SW002_211129	HDPE (no PTFE)	20 mL	00350621064250	Grey	No	
018	0902_SW002_211129	HDPE (no PTFE)	20 mL	00350621064301	Grey	No	
019	0902_SD003_211129	HDPE Soil Jar	200 mL	00620719053982	Grey	No	
020	0902_SD007_211129	HDPE Soil Jar	200 mL	00620719053237	Grey	No	
021	0902_SD008_211129	HDPE Soil Jar	200 mL	00620719053282	Grey	No	
022	0902_SD009_211129	HDPE Soil Jar	200 mL	00620719053314	Grey	No	
023	0902_SD011_211129	HDPE Soil Jar	200 mL	00620719053260	Grey	No	
024	0902_SD013_211129	HDPE Soil Jar	200 mL	00620719053242	Grey	No	
025	0902_SD015_211129	HDPE Soil Jar	200 mL	00620719053302	Grey	No	
026	0902_SD016_211129	HDPE Soil Jar	200 mL	00620719053188	Grey	No	
027	0902_SD018_211129	HDPE Soil Jar	200 mL	00620719053957	Grey	No	
028	0902_SD019_211129	HDPE Soil Jar	200 mL	00620719054020	Grey	No	
029	0902_SD020_211129	HDPE Soil Jar	200 mL	00620719053273	Grey	No	
030	0902_SD022_211129	HDPE Soil Jar	200 mL	00620719053185	Grey	No	
032	0902_SD002_211129	HDPE Soil Jar	200 mL	00620719053332	Grey	No	
033	0902_SW003_211129	Clear Plastic Bottle - Natural	500 mL	00070621190558	Green	No	
033	0902_SW003_211129	Clear Plastic Bottle - Natural	500 mL	00070621190860	Green	No	
033	0902_SW003_211129	HDPE (no PTFE)	20 mL	00350621064246	Grey	No	
033	0902_SW003_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019142	Red	Yes	
033	0902_SW003_211129	HDPE (no PTFE)	20 mL	00350621064253	Grey	No	
033	0902_SW003_211129	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020081659	Purple	No	
033	0902_SW003_211129	HDPE (no PTFE)	20 mL	00350621064293	Grey	No	
033	0902_SW003_211129	HDPE (no PTFE)	20 mL	00350621064184	Grey	No	
034	0902_SW007_211129	HDPE (no PTFE)	20 mL	00350621065305	Grey	No	
034	0902_SW007_211129	HDPE (no PTFE)	20 mL	00350621065491	Grey	No	
034	0902_SW007_211129	HDPE (no PTFE)	20 mL	00350621065495	Grey	No	
034	0902_SW007_211129	HDPE (no PTFE)	20 mL	00350621065400	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 30345 ALS Laboratory: ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/4/21 3.47	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0-2 °C

Other comments:

035	0902_SW008_211129	Clear Plastic Bottle - Natural	500 mL	00070121090833	Green	No	
035	0902_SW008_211129	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020077603	Purple	No	
035	0902_SW008_211129	HDPE (no PTFE)	20 mL	00350621064257	Grey	No	
035	0902_SW008_211129	HDPE (no PTFE)	20 mL	00350621064344	Grey	No	
035	0902_SW008_211129	HDPE (no PTFE)	20 mL	00350621064146	Grey	No	
035	0902_SW008_211129	HDPE (no PTFE)	20 mL	00350621064103	Grey	No	
035	0902_SW008_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019232	Red	Yes	
036	0902_SW009_211129	Clear Plastic Bottle - Natural	500 mL	00070621190875	Green	No	
036	0902_SW009_211129	Clear Plastic Bottle - Natural	500 mL	00070621190835	Green	No	
036	0902_SW009_211129	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020077295	Purple	No	
036	0902_SW009_211129	HDPE (no PTFE)	20 mL	00350621064149	Grey	No	
036	0902_SW009_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019032	Red	Yes	
036	0902_SW009_211129	HDPE (no PTFE)	20 mL	00350621064157	Grey	No	
036	0902_SW009_211129	HDPE (no PTFE)	20 mL	00350621064350	Grey	No	
036	0902_SW009_211129	HDPE (no PTFE)	20 mL	00350621064224	Grey	No	
037	0902_SW011_211129	HDPE (no PTFE)	20 mL	00350621064248	Grey	No	
037	0902_SW011_211129	HDPE (no PTFE)	20 mL	00350621064145	Grey	No	
037	0902_SW011_211129	HDPE (no PTFE)	20 mL	00350621064192	Grey	No	
037	0902_SW011_211129	HDPE (no PTFE)	20 mL	00350621064193	Grey	No	
038	0902_SW013_211129	HDPE (no PTFE)	20 mL	00350621064328	Grey	No	
038	0902_SW013_211129	HDPE (no PTFE)	20 mL	00350621064264	Grey	No	
038	0902_SW013_211129	HDPE (no PTFE)	20 mL	00350621064214	Grey	No	
038	0902_SW013_211129	HDPE (no PTFE)	20 mL	00350621064289	Grey	No	
039	0902_SW015_211129	Clear Plastic Bottle - Natural	500 mL	00070121090767	Green	No	
039	0902_SW015_211129	HDPE (no PTFE)	20 mL	00350621064216	Grey	No	
039	0902_SW015_211129	HDPE (no PTFE)	20 mL	00350621064232	Grey	No	
039	0902_SW015_211129	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020081723	Purple	No	

CHAIN OF CUSTODY

ALS COC#: 30345 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/11/21 3:49	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 6.2 °C

Other comments:

039	0902_SW015_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821018981	Red	Yes	
039	0902_SW015_211129	HDPE (no PTFE)	20 mL	00350621064112	Grey	No	
039	0902_SW015_211129	HDPE (no PTFE)	20 mL	00350621064166	Grey	No	
040	0902_SW016_211129	Clear Plastic Bottle - Natural	500 mL	00070121090759	Green	No	
040	0902_SW016_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019129	Red	Yes	
040	0902_SW016_211129	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020081782	Purple	No	
040	0902_SW016_211129	HDPE (no PTFE)	20 mL	00350621064177	Grey	No	
040	0902_SW016_211129	HDPE (no PTFE)	20 mL	00350621064206	Grey	No	
040	0902_SW016_211129	HDPE (no PTFE)	20 mL	00350621064306	Grey	No	
040	0902_SW016_211129	HDPE (no PTFE)	20 mL	00350621064262	Grey	No	
041	0902_SW018_211129	HDPE (no PTFE)	20 mL	00350621064160	Grey	No	
041	0902_SW018_211129	HDPE (no PTFE)	20 mL	00350621064326	Grey	No	
041	0902_SW018_211129	HDPE (no PTFE)	20 mL	00350621064233	Grey	No	
041	0902_SW018_211129	HDPE (no PTFE)	20 mL	00350621064279	Grey	No	
042	0902_SW019_211129	HDPE (no PTFE)	20 mL	00350621064266	Grey	No	
042	0902_SW019_211129	HDPE (no PTFE)	20 mL	00350621064319	Grey	No	
042	0902_SW019_211129	HDPE (no PTFE)	20 mL	00350621064147	Grey	No	
042	0902_SW019_211129	HDPE (no PTFE)	20 mL	00350621064198	Grey	No	
043	0902_SW020_211129	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100621053277	Purple	No	
043	0902_SW020_211129	Clear Plastic Bottle - Natural	500 mL	00070621190813	Green	No	
043	0902_SW020_211129	Clear Plastic Bottle - Natural	500 mL	00070621190474	Green	No	
043	0902_SW020_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019058	Red	Yes	
043	0902_SW020_211129	HDPE (no PTFE)	20 mL	00350621064163	Grey	No	
043	0902_SW020_211129	HDPE (no PTFE)	20 mL	00350621064153	Grey	No	
043	0902_SW020_211129	HDPE (no PTFE)	20 mL	00350621064215	Grey	No	
043	0902_SW020_211129	HDPE (no PTFE)	20 mL	00350621064140	Grey	No	
044	0902_SW037_211129	HDPE (no PTFE)	20 mL	00350621064135	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 30345 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/11/21 3:45	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Ayrton Donegan QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

044	0902_SW037_211129	HDPE (no PTFE)	20 mL	00350621064191	Grey	No	
044	0902_SW037_211129	HDPE (no PTFE)	20 mL	00350621064125	Grey	No	
044	0902_SW037_211129	HDPE (no PTFE)	20 mL	00350621064243	Grey	No	
045	0902_SW022_211129	Clear Plastic Bottle - Natural	500 mL	00070621190572	Green	No	
045	0902_SW022_211129	Clear Plastic Bottle - Natural	500 mL	00070621190883	Green	No	
045	0902_SW022_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019247	Red	Yes	
045	0902_SW022_211129	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020077598	Purple	No	
045	0902_SW022_211129	HDPE (no PTFE)	20 mL	00350621064150	Grey	No	
045	0902_SW022_211129	HDPE (no PTFE)	20 mL	00350621064231	Grey	No	
045	0902_SW022_211129	HDPE (no PTFE)	20 mL	00350621064274	Grey	No	
045	0902_SW022_211129	HDPE (no PTFE)	20 mL	00350621064296	Grey	No	
046	0902_QC110_211129	HDPE (no PTFE)	20 mL	00350621065307	Grey	No	
046	0902_QC110_211129	HDPE (no PTFE)	20 mL	00350621065370	Grey	No	
046	0902_QC110_211129	HDPE (no PTFE)	20 mL	00350621038760	Grey	No	
046	0902_QC110_211129	HDPE (no PTFE)	20 mL	00350621065444	Grey	No	
047	0902_QC111_211129	HDPE Soil Jar	200 mL	00620719053264	Grey	No	
048	0902_QC112_211129	HDPE (no PTFE)	20 mL	00350621065321	Grey	No	
048	0902_QC112_211129	HDPE (no PTFE)	20 mL	00350621065469	Grey	No	
048	0902_QC112_211129	HDPE (no PTFE)	20 mL	00350621065487	Grey	No	
048	0902_QC112_211129	HDPE (no PTFE)	20 mL	00350621038772	Grey	No	
049	0902_QC114_211129	HDPE Soil Jar	200 mL	00620719053322	Grey	No	
050	0902_QC113_211129	Clear Plastic Bottle - Natural	500 mL	00070121090781	Green	No	
050	0902_QC113_211129	HDPE (no PTFE)	20 mL	00350621064097	Grey	No	
050	0902_QC113_211129	HDPE (no PTFE)	20 mL	00350621064359	Grey	No	
050	0902_QC113_211129	HDPE (no PTFE)	20 mL	00350621064200	Grey	No	
050	0902_QC113_211129	HDPE (no PTFE)	20 mL	00350621064077	Grey	No	
050	0902_QC113_211129	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101020077715	Purple	No	

CHAIN OF CUSTODY

ALS COC#: 30345 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 30/11/21 3:49	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: 0.2 °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

050	0902_QC113_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821019255	Red	Yes	
051	0902_QC115_211129	HDPE (no PTFE)	20 mL	00350621064244	Grey	No	
051	0902_QC115_211129	HDPE (no PTFE)	20 mL	00350621064115	Grey	No	
051	0902_QC115_211129	HDPE (no PTFE)	20 mL	00350621064355	Grey	No	
051	0902_QC115_211129	HDPE (no PTFE)	20 mL	00350621064143	Grey	No	
052	0902_QC305_211129	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120821022137	Red	Yes	
052	0902_QC305_211129	HDPE (no PTFE)	20 mL	00350621065345	Grey	No	
052	0902_QC305_211129	HDPE (no PTFE)	20 mL	00350621065280	Grey	No	
052	0902_QC305_211129	HDPE (no PTFE)	20 mL	00350621065347	Grey	No	
052	0902_QC305_211129	HDPE (no PTFE)	20 mL	00350621065405	Grey	No	

Total Bottle Count: ALS: 198, Non ALS: 0

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2143536**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Christopher.Redford@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 5
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 30345	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: NSW_0902		
Sampler	: ANDREW SPOOR, AYRTON DONEGAN		

Dates

Date Samples Received	: 30-Nov-2021 15:45	Issue Date	: 01-Dec-2021
Client Requested Due Date	: 07-Dec-2021	Scheduled Reporting Date	: **07-Dec-2021**

Delivery Details

Mode of Delivery	: Pickup	Security Seal	: Intact.
No. of coolers/boxes	: 3	Temperature	: 0.2'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 51 / 51
		No. of samples NOT collected	2

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please note that only PFAS and metals analysis was added on sample 52 due to insufficient volume.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Sample 0902_SW022_211129 was not received due to the following reason: Sample not received.
- Sample 0902_MW030_211129 was not received due to the following reason: Sample not received.
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2143536-019	29-Nov-2021 10:27	0902_SD003_211129	✓
ES2143536-020	29-Nov-2021 11:55	0902_SD007_211129	✓
ES2143536-021	29-Nov-2021 12:43	0902_SD008_211129	✓
ES2143536-022	29-Nov-2021 13:08	0902_SD009_211129	✓
ES2143536-023	29-Nov-2021 15:33	0902_SD011_211129	✓
ES2143536-024	29-Nov-2021 14:42	0902_SD013_211129	✓
ES2143536-025	29-Nov-2021 09:08	0902_SD015_211129	✓
ES2143536-026	29-Nov-2021 09:41	0902_SD016_211129	✓
ES2143536-027	29-Nov-2021 15:57	0902_SD018_211129	✓
ES2143536-028	29-Nov-2021 15:43	0902_SD019_211129	✓
ES2143536-029	29-Nov-2021 16:26	0902_SD020_211129	✓
ES2143536-030	29-Nov-2021 08:23	0902_SD022_211129	✓
ES2143536-031	29-Nov-2021 17:39	0902_SD030_211129	✓
ES2143536-032	29-Nov-2021 10:03	0902_SD002_211129	✓
ES2143536-047	29-Nov-2021 11:58	0902_QC111_211129	✓
ES2143536-049	29-Nov-2021 12:43	0902_QC114_211129	✓

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content
ES2143536-019	29-Nov-2021 10:27	0902_SD003_211129	✓
ES2143536-020	29-Nov-2021 11:55	0902_SD007_211129	✓
ES2143536-021	29-Nov-2021 12:43	0902_SD008_211129	✓
ES2143536-022	29-Nov-2021 13:08	0902_SD009_211129	✓
ES2143536-023	29-Nov-2021 15:33	0902_SD011_211129	✓
ES2143536-024	29-Nov-2021 14:42	0902_SD013_211129	✓
ES2143536-025	29-Nov-2021 09:08	0902_SD015_211129	✓
ES2143536-026	29-Nov-2021 09:41	0902_SD016_211129	✓

			SOIL - EA055-103 Moisture Content
ES2143536-027	29-Nov-2021 15:57	0902_SD018_211129	✓
ES2143536-028	29-Nov-2021 15:43	0902_SD019_211129	✓
ES2143536-029	29-Nov-2021 16:26	0902_SD020_211129	✓
ES2143536-030	29-Nov-2021 08:23	0902_SD022_211129	✓
ES2143536-031	29-Nov-2021 17:39	0902_SD030_211129	✓
ES2143536-032	29-Nov-2021 10:03	0902_SD002_211129	✓
ES2143536-047	29-Nov-2021 11:58	0902_QC111_211129	✓
ES2143536-049	29-Nov-2021 12:43	0902_QC114_211129	✓

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - EG020F Dissolved Metals by ICP/MS	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EK067G Total Phosphorus as P By Discrete Analyser	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-04 Nitrite and Nitrate
ES2143536-001	29-Nov-2021 12:19	0902_MW001_211129	✓	✓	✓	✓	✓	✓
ES2143536-002	29-Nov-2021 11:40	0902_MW002_211129				✓		
ES2143536-003	29-Nov-2021 14:24	0902_MW012_211129				✓		
ES2143536-004	29-Nov-2021 14:52	0902_MW013_211129				✓		
ES2143536-005	29-Nov-2021 15:13	0902_MW014_211129				✓		
ES2143536-006	29-Nov-2021 15:21	0902_MW015_211129				✓		
ES2143536-007	29-Nov-2021 10:56	0902_MW016_211129				✓		
ES2143536-008	29-Nov-2021 15:02	0902_MW017_211129				✓		
ES2143536-011	29-Nov-2021 16:51	0902_MW059_211129				✓		
ES2143536-012	29-Nov-2021 08:22	0902_MW081_211129	✓	✓	✓	✓	✓	✓
ES2143536-013	29-Nov-2021 13:17	0902_MW095_211129	✓	✓	✓	✓	✓	✓
ES2143536-014	29-Nov-2021 09:42	0902_MW097_211126	✓	✓	✓	✓	✓	✓
ES2143536-015	29-Nov-2021 09:06	0902_MW098_211129	✓	✓	✓	✓	✓	✓
ES2143536-016	29-Nov-2021 11:38	0902_MW113_211129				✓		
ES2143536-017	29-Nov-2021 12:24	0902_MW114_211129				✓		
ES2143536-018	29-Nov-2021 10:01	0902_SW002_211129				✓		
ES2143536-033	29-Nov-2021 10:26	0902_SW003_211129	✓	✓	✓	✓	✓	✓
ES2143536-034	29-Nov-2021 11:56	0902_SW007_211129				✓		
ES2143536-035	29-Nov-2021 12:47	0902_SW008_211129	✓	✓	✓	✓	✓	✓
ES2143536-036	29-Nov-2021 13:06	0902_SW009_211129	✓	✓	✓	✓	✓	✓
ES2143536-037	29-Nov-2021 15:34	0902_SW011_211129				✓		

			WATER - EG020F Dissolved Metals by ICP/MS	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EK067G Total Phosphorus as P By Discrete Analyser	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-04 Nitrite and Nitrate
ES2143536-038	29-Nov-2021 14:43	0902_SW013_211129				✓		
ES2143536-039	29-Nov-2021 09:08	0902_SW015_211129	✓	✓	✓	✓	✓	✓
ES2143536-040	29-Nov-2021 09:41	0902_SW016_211129	✓	✓	✓	✓	✓	✓
ES2143536-041	29-Nov-2021 15:57	0902_SW018_211129				✓		
ES2143536-042	29-Nov-2021 15:42	0902_SW019_211129				✓		
ES2143536-043	29-Nov-2021 16:25	0902_SW020_211129	✓	✓	✓	✓	✓	✓
ES2143536-044	29-Nov-2021 10:28	0902_SW037_211129				✓		
ES2143536-045	29-Nov-2021 08:24	0902_SW022_211129	✓	✓	✓	✓	✓	✓
ES2143536-046	29-Nov-2021 10:57	0902_QC110_211129				✓		
ES2143536-048	29-Nov-2021 12:22	0902_QC112_211129				✓		
ES2143536-050	29-Nov-2021 12:45	0902_QC113_211129	✓	✓	✓	✓	✓	✓
ES2143536-051	29-Nov-2021 14:44	0902_QC115_211129				✓		
ES2143536-052	29-Nov-2021 17:15	0902_QC305_211129	✓			✓		
ES2143536-053	29-Nov-2021 00:00	0902_SW030_211129				✓		

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

ANDREW SPOOR

- *AU Certificate of Analysis - NATA (COA)	Email	Andrew.Spoor@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Andrew.Spoor@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Andrew.Spoor@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Andrew.Spoor@aecom.com
- Chain of Custody (CoC) (COC)	Email	Andrew.Spoor@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Andrew.Spoor@aecom.com
- EDI Format - XTab (XTAB)	Email	Andrew.Spoor@aecom.com

AYRTON DONEGAN

- *AU Certificate of Analysis - NATA (COA)	Email	ayrton.donegan@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	ayrton.donegan@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	ayrton.donegan@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	ayrton.donegan@aecom.com
- Chain of Custody (CoC) (COC)	Email	ayrton.donegan@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	ayrton.donegan@aecom.com
- EDI Format - XTab (XTAB)	Email	ayrton.donegan@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
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- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
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- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com

MAT JENKINS

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- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2143536**	Page	: 1 of 36
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 30-Nov-2021 15:45
Order number	: 60612562_5.1	Date Analysis Commenced	: 01-Dec-2021
C-O-C number	: 30345	Issue Date	: 07-Dec-2021 15:38
Sampler	: ANDREW SPOOR, AYRTON DONEGAN		
Site	: NSW_0902		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 53		
No. of samples analysed	: 51		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EG020: Bromine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW001_211129	0902_MW002_211129	0902_MW012_211129	0902_MW013_211129	0902_MW015_211129
				Sampling date / time	29-Nov-2021 12:19	29-Nov-2021 11:40	29-Nov-2021 14:24	29-Nov-2021 14:52	29-Nov-2021 15:21
Compound	CAS Number	LOR	Unit		ES2143536-001	ES2143536-002	ES2143536-003	ES2143536-004	ES2143536-006
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	----	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	----	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		**277**	----	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L		**277**	----	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		**54**	----	----	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		**257**	----	----	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		**75**	----	----	----	----
Magnesium	7439-95-4	1	mg/L		**45**	----	----	----	----
Sodium	7440-23-5	1	mg/L		**125**	----	----	----	----
Potassium	7440-09-7	1	mg/L		<1	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		**0.066**	----	----	----	----
Iron	7439-89-6	0.05	mg/L		<0.05	----	----	----	----
Bromine	7726-95-6	0.1	mg/L		**0.6**	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		**0.04**	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.08**	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.08**	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.17**	----	----	----	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		**13.9**	----	----	----	----
ø Total Cations	----	0.01	meq/L		**12.9**	----	----	----	----
ø Ionic Balance	----	0.01	%		**3.82**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW001_211129	0902_MW002_211129	0902_MW012_211129	0902_MW013_211129	0902_MW015_211129
				Sampling date / time	29-Nov-2021 12:19	29-Nov-2021 11:40	29-Nov-2021 14:24	29-Nov-2021 14:52	29-Nov-2021 15:21
					ES2143536-001	ES2143536-002	ES2143536-003	ES2143536-004	ES2143536-006
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.03**	<0.02	**0.63**	**0.35**	**0.28**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.02**	<0.02	**0.54**	**0.28**	**0.28**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.12**	<0.01	**3.42**	**1.85**	**2.05**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.08**	<0.02	**0.10**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	**0.98**	**0.08**	**1.79**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.13**	**0.02**	**0.04**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.72**	**0.15**	**0.31**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.09**	<0.02	**0.04**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.12**	**0.01**	**0.07**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW001_211129	0902_MW002_211129	0902_MW012_211129	0902_MW013_211129	0902_MW015_211129
				Sampling date / time	29-Nov-2021 12:19	29-Nov-2021 11:40	29-Nov-2021 14:24	29-Nov-2021 14:52	29-Nov-2021 15:21
Compound	CAS Number	LOR	Unit		ES2143536-001	ES2143536-002	ES2143536-003	ES2143536-004	ES2143536-006
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.17**	<0.01	**6.71**	**2.74**	**4.96**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.12**	<0.01	**4.40**	**1.93**	**3.84**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.15**	<0.01	**6.09**	**2.46**	**4.58**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**106**	**107**	**104**	**108**	**112**
13C8-PFOA	----	0.02	%		**94.4**	**97.6**	**94.3**	**93.7**	**94.7**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW016_211129	0902_MW017_211129	0902_MW059_211129	0902_MW081_211129	0902_MW095_211129
				Sampling date / time	29-Nov-2021 10:56	29-Nov-2021 15:02	29-Nov-2021 16:51	29-Nov-2021 08:22	29-Nov-2021 13:17
Compound	CAS Number	LOR	Unit		ES2143536-007	ES2143536-008	ES2143536-011	ES2143536-012	ES2143536-013
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	----	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	----	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	----	**389**	**502**
Total Alkalinity as CaCO3	----	1	mg/L		----	----	----	**389**	**502**
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	----	**31**	**144**
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	----	**261**	**1370**
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	----	**36**	**101**
Magnesium	7439-95-4	1	mg/L		----	----	----	**30**	**113**
Sodium	7440-23-5	1	mg/L		----	----	----	**231**	**790**
Potassium	7440-09-7	1	mg/L		----	----	----	<1	<1
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	----	<0.01	<0.01
Manganese	7439-96-5	0.001	mg/L		----	----	----	**3.88**	**0.017**
Iron	7439-89-6	0.05	mg/L		----	----	----	**1.21**	<0.05
Bromine	7726-95-6	0.1	mg/L		----	----	----	**0.9**	**3.7**
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	----	**0.04**	<0.01
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	----	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	----	**0.02**	**2.70**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	----	**0.02**	**2.70**
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	----	**0.06**	**0.15**
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	----	----	**15.8**	**51.7**
ø Total Cations	----	0.01	meq/L		----	----	----	**14.3**	**48.7**
ø Ionic Balance	----	0.01	%		----	----	----	**4.87**	**2.96**
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW016_211129	0902_MW017_211129	0902_MW059_211129	0902_MW081_211129	0902_MW095_211129
				Sampling date / time	29-Nov-2021 10:56	29-Nov-2021 15:02	29-Nov-2021 16:51	29-Nov-2021 08:22	29-Nov-2021 13:17
Compound	CAS Number	LOR	Unit		ES2143536-007	ES2143536-008	ES2143536-011	ES2143536-012	ES2143536-013
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.56**	**3.07**	<0.02	**0.06**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.59**	**1.77**	<0.02	**0.04**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**5.60**	**2.68**	**0.02**	**0.12**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.12**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**1.70**	**0.08**	**0.02**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.2**	**0.4**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.02**	**0.61**	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.12**	**3.28**	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.29**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.05**	**0.02**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW016_211129	0902_MW017_211129	0902_MW059_211129	0902_MW081_211129	0902_MW095_211129
				Sampling date / time	29-Nov-2021 10:56	29-Nov-2021 15:02	29-Nov-2021 16:51	29-Nov-2021 08:22	29-Nov-2021 13:17
Compound	CAS Number	LOR	Unit		ES2143536-007	ES2143536-008	ES2143536-011	ES2143536-012	ES2143536-013
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**8.96**	**12.2**	**0.04**	**0.22**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**7.30**	**2.76**	**0.04**	**0.12**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**8.25**	**10.4**	**0.04**	**0.18**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**105**	**102**	**102**	**106**	**106**
13C8-PFOA	----	0.02	%		**92.8**	**95.5**	**92.4**	**97.6**	**98.2**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW097_211129	0902_MW098_211129	0902_MW113_211129	0902_MW114_211129	0902_QC110_211129
				Sampling date / time	29-Nov-2021 09:42	29-Nov-2021 09:06	29-Nov-2021 11:38	29-Nov-2021 12:24	29-Nov-2021 10:57
Compound	CAS Number	LOR	Unit		ES2143536-014	ES2143536-015	ES2143536-016	ES2143536-017	ES2143536-046
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		**62**	**296**	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L		**62**	**296**	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		**8**	**87**	----	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		**12**	**800**	----	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		**14**	**94**	----	----	----
Magnesium	7439-95-4	1	mg/L		**4**	**85**	----	----	----
Sodium	7440-23-5	1	mg/L		**9**	**374**	----	----	----
Potassium	7440-09-7	1	mg/L		**6**	**2**	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**0.19**	<0.01	----	----	----
Manganese	7439-96-5	0.001	mg/L		**0.092**	**0.888**	----	----	----
Iron	7439-89-6	0.05	mg/L		**0.18**	**6.98**	----	----	----
Bromine	7726-95-6	0.1	mg/L		<0.1	**1.6**	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		**0.01**	**0.19**	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	<0.01	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.34**	**0.02**	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.34**	**0.02**	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.44**	**1.48**	----	----	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		**1.74**	**30.3**	----	----	----
ø Total Cations	----	0.01	meq/L		**1.57**	**28.0**	----	----	----
ø Ionic Balance	----	0.01	%		----	**3.92**	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW097_211129	0902_MW098_211129	0902_MW113_211129	0902_MW114_211129	0902_QC110_211129
				Sampling date / time	29-Nov-2021 09:42	29-Nov-2021 09:06	29-Nov-2021 11:38	29-Nov-2021 12:24	29-Nov-2021 10:57
Compound	CAS Number	LOR	Unit		ES2143536-014	ES2143536-015	ES2143536-016	ES2143536-017	ES2143536-046
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	**0.03**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	**0.14**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW097_211129	0902_MW098_211129	0902_MW113_211129	0902_MW114_211129	0902_QC110_211129
				Sampling date / time	29-Nov-2021 09:42	29-Nov-2021 09:06	29-Nov-2021 11:38	29-Nov-2021 12:24	29-Nov-2021 10:57
Compound	CAS Number	LOR	Unit		ES2143536-014	ES2143536-015	ES2143536-016	ES2143536-017	ES2143536-046
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	**0.19**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.14**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	**0.17**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**99.9**	**109**	**112**	**111**
13C8-PFOA	----	0.02	%		**98.7**	**91.5**	**92.6**	**92.5**	**107**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC112_211129	----	----	----	----
				Sampling date / time	29-Nov-2021 12:22	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2143536-048	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.04**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.03**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.14**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC112_211129	----	----	----	----
				Sampling date / time	29-Nov-2021 12:22	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2143536-048	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.21**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.14**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.18**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**114**	----	----	----	----
13C8-PFOA	----	0.02	%		**107**	----	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0902_SD003_211129	0902_SD007_211129	0902_SD008_211129	0902_SD009_211129	0902_SD011_211129
			Sampling date / time	29-Nov-2021 10:27	29-Nov-2021 11:55	29-Nov-2021 12:43	29-Nov-2021 13:08	29-Nov-2021 15:33
Compound	CAS Number	LOR	Unit	ES2143536-019	ES2143536-020	ES2143536-021	ES2143536-022	ES2143536-023
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**66.7**	**45.1**	**56.5**	**54.4**	**46.2**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	**0.0067**	<0.0002	<0.0002	**0.0003**	**0.0003**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	**0.0073**	<0.0002	<0.0002	**0.0003**	**0.0003**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.106**	**0.0008**	**0.0011**	**0.0032**	**0.0050**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	**0.0092**	<0.0002	**0.0010**	**0.0003**	**0.0006**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**1.29**	**0.0121**	**0.0056**	**0.0493**	**0.117**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	**0.0534**	<0.0002	<0.0002	**0.0010**	**0.0027**
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	**0.003**	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	**0.0076**	<0.0002	<0.0002	<0.0002	**0.0004**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	**0.0136**	<0.0002	<0.0002	**0.0006**	**0.0013**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	**0.0039**	<0.0002	<0.0002	<0.0002	**0.0004**
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	**0.0094**	<0.0002	<0.0002	**0.0003**	**0.0006**
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	**0.0076**	<0.0002	<0.0002	<0.0002	**0.0008**
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	**0.0247**	<0.0002	**0.0009**	<0.0002	**0.0014**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	**0.0344**	<0.0002	<0.0002	<0.0002	**0.0019**
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	**0.0490**	<0.0002	<0.0002	**0.0005**	**0.0025**
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	**0.0110**	<0.0002	<0.0002	<0.0002	**0.0008**
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	**0.0008**
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	**0.0232**	<0.0002	<0.0002	**0.0003**	**0.0007**
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD003_211129	0902_SD007_211129	0902_SD008_211129	0902_SD009_211129	0902_SD011_211129
				Sampling date / time	29-Nov-2021 10:27	29-Nov-2021 11:55	29-Nov-2021 12:43	29-Nov-2021 13:08	29-Nov-2021 15:33
Compound	CAS Number	LOR	Unit		ES2143536-019	ES2143536-020	ES2143536-021	ES2143536-022	ES2143536-023
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		**0.0003**	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		**0.0013**	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		**0.0030**	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		**0.0009**	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**1.66**	**0.0129**	**0.0086**	**0.0561**	**0.138**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**1.40**	**0.0129**	**0.0067**	**0.0525**	**0.122**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**1.44**	**0.0129**	**0.0067**	**0.0537**	**0.125**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**97.5**	**120**	**70.5**	**104**	**93.0**
13C8-PFOA	----	0.0002	%		**83.5**	**89.0**	**92.0**	**88.0**	**91.5**

Analytical Results

Sub-Matrix: **SEDIMENT** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SD013_211129	0902_SD015_211129	0902_SD016_211129	0902_SD018_211129	0902_SD019_211129
				Sampling date / time	29-Nov-2021 14:42	29-Nov-2021 09:08	29-Nov-2021 09:41	29-Nov-2021 15:57	29-Nov-2021 15:43
					ES2143536-024	ES2143536-025	ES2143536-026	ES2143536-027	ES2143536-028
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**73.8**	**52.9**	**34.4**	**22.4**	**39.8**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		**0.0006**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		**0.0011**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0358**	<0.0002	<0.0002	<0.0002	**0.0009**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		**0.0024**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.178**	**0.0016**	**0.0027**	**0.0005**	**0.0056**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		**0.0017**	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		**0.0019**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		**0.0013**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		**0.0003**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		**0.0008**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		**0.0003**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		**0.0004**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		**0.0002**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD013_211129	0902_SD015_211129	0902_SD016_211129	0902_SD018_211129	0902_SD019_211129
				Sampling date / time	29-Nov-2021 14:42	29-Nov-2021 09:08	29-Nov-2021 09:41	29-Nov-2021 15:57	29-Nov-2021 15:43
Compound	CAS Number	LOR	Unit		ES2143536-024	ES2143536-025	ES2143536-026	ES2143536-027	ES2143536-028
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.225**	**0.0016**	**0.0027**	**0.0005**	**0.0065**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.214**	**0.0016**	**0.0027**	**0.0005**	**0.0065**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.219**	**0.0016**	**0.0027**	**0.0005**	**0.0065**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**112**	**106**	**108**	**102**	**92.5**
13C8-PFOA	----	0.0002	%		**108**	**110**	**112**	**95.5**	**100**

Analytical Results

Sub-Matrix: **SEDIMENT** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SD020_211129	0902_SD022_211129	0902_SD030_211129	0902_SD002_211129	0902_QC111_211129
				Sampling date / time	29-Nov-2021 16:26	29-Nov-2021 08:23	29-Nov-2021 17:39	29-Nov-2021 10:03	29-Nov-2021 11:58
					ES2143536-029	ES2143536-030	ES2143536-031	ES2143536-032	ES2143536-047
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**39.6**	**40.9**	**21.3**	**46.6**	**50.5**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0028**	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0028**	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	**0.0003**	<0.0002	**0.0379**	**0.0012**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0060**	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0047**	**0.0027**	<0.0002	**0.593**	**0.0100**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	**0.0012**	<0.0002	**0.0121**	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0016**	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0052**	**0.0003**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0009**	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0028**	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0034**	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0117**	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0116**	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	**0.0003**	<0.0002	**0.0147**	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0048**	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	**0.0045**	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0231**	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD020_211129	0902_SD022_211129	0902_SD030_211129	0902_SD002_211129	0902_QC111_211129
				Sampling date / time	29-Nov-2021 16:26	29-Nov-2021 08:23	29-Nov-2021 17:39	29-Nov-2021 10:03	29-Nov-2021 11:58
Compound	CAS Number	LOR	Unit		ES2143536-029	ES2143536-030	ES2143536-031	ES2143536-032	ES2143536-047
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0003**	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	**0.0007**	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	**0.0026**	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	**0.0006**	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0047**	**0.0045**	<0.0002	**0.743**	**0.0115**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0047**	**0.0030**	<0.0002	**0.631**	**0.0112**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0047**	**0.0030**	<0.0002	**0.648**	**0.0115**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**95.0**	**105**	**100**	**95.0**	**101**
13C8-PFOA	----	0.0002	%		**93.0**	**89.5**	**89.0**	**83.5**	**86.5**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_QC114_211129	----	----	----	----
				Sampling date / time	29-Nov-2021 12:43	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2143536-049	--------	--------	--------	--------
					Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**56.3**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0010**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0036**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	----	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_QC114_211129	----	----	----	----
				Sampling date / time	29-Nov-2021 12:43	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2143536-049	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0046**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0046**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0046**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**81.5**	----	----	----	----
13C8-PFOA	----	0.0002	%		**93.5**	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_MW014_211129	0902_SW002_211129	0902_SW003_211129	0902_SW007_211129	0902_SW008_211129
				Sampling date / time	29-Nov-2021 15:13	29-Nov-2021 10:01	29-Nov-2021 10:26	29-Nov-2021 11:56	29-Nov-2021 12:47
Compound	CAS Number	LOR	Unit		ES2143536-005	ES2143536-018	ES2143536-033	ES2143536-034	ES2143536-035
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	<1	----	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	<1	----	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	50	----	54
Total Alkalinity as CaCO3	----	1	mg/L		----	----	50	----	54
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	7	----	15
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	13	----	52
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	12	----	11
Magnesium	7439-95-4	1	mg/L		----	----	4	----	7
Sodium	7440-23-5	1	mg/L		----	----	12	----	30
Potassium	7440-09-7	1	mg/L		----	----	4	----	8
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	0.25	----	0.72
Manganese	7439-96-5	0.001	mg/L		----	----	0.040	----	0.157
Iron	7439-89-6	0.05	mg/L		----	----	0.58	----	1.04
Bromine	7726-95-6	0.1	mg/L		----	----	<0.1	----	0.1
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	0.06	----	0.12
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	<0.01	----	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	0.09	----	0.18
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	0.09	----	0.18
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	0.26	----	0.54
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	----	1.51	----	2.86
ø Total Cations	----	0.01	meq/L		----	----	1.55	----	2.63
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_MW014_211129	0902_SW002_211129	0902_SW003_211129	0902_SW007_211129	0902_SW008_211129
				Sampling date / time	29-Nov-2021 15:13	29-Nov-2021 10:01	29-Nov-2021 10:26	29-Nov-2021 11:56	29-Nov-2021 12:47
Compound	CAS Number	LOR	Unit		ES2143536-005	ES2143536-018	ES2143536-033	ES2143536-034	ES2143536-035
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.37**	**1.86**	**1.63**	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.28**	**1.89**	**1.71**	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**1.25**	**15.0**	**13.5**	**0.08**	**0.05**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.02**	**1.00**	**0.89**	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.06**	**41.6**	**33.6**	**0.07**	**0.08**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	**0.02**	**0.03**	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.4**	**0.4**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.04**	**0.86**	**0.80**	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.28**	**3.58**	**3.18**	**0.03**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.02**	**0.49**	**0.45**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.01**	**0.95**	**0.84**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.10**	**0.10**	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	**0.02**	**0.04**	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	**0.02**	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_MW014_211129	0902_SW002_211129	0902_SW003_211129	0902_SW007_211129	0902_SW008_211129
				Sampling date / time	29-Nov-2021 15:13	29-Nov-2021 10:01	29-Nov-2021 10:26	29-Nov-2021 11:56	29-Nov-2021 12:47
Compound	CAS Number	LOR	Unit		ES2143536-005	ES2143536-018	ES2143536-033	ES2143536-034	ES2143536-035
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	**0.06**	**0.06**	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**2.33**	**67.8**	**57.2**	**0.18**	**0.13**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.31**	**56.6**	**47.1**	**0.15**	**0.13**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**2.03**	**64.8**	**54.5**	**0.18**	**0.13**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**107**	**106**	**107**	**110**	**108**
13C8-PFOA	----	0.02	%		**98.4**	**89.3**	**92.7**	**95.5**	**88.2**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0902_SW009_211129	0902_SW011_211129	0902_SW013_211129	0902_SW015_211129	0902_SW016_211129
			Sampling date / time	29-Nov-2021 13:06	29-Nov-2021 15:34	29-Nov-2021 14:43	29-Nov-2021 09:08	29-Nov-2021 09:41
Compound	CAS Number	LOR	Unit	ES2143536-036	ES2143536-037	ES2143536-038	ES2143536-039	ES2143536-040
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	----	----	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	----	----	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	65	----	----	129	54
Total Alkalinity as CaCO3	----	1	mg/L	65	----	----	129	54
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	11	----	----	31	14
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	65	----	----	194	20
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	14	----	----	28	13
Magnesium	7439-95-4	1	mg/L	8	----	----	21	4
Sodium	7440-23-5	1	mg/L	38	----	----	95	12
Potassium	7440-09-7	1	mg/L	8	----	----	11	14
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	0.11	----	----	0.08	0.43
Manganese	7439-96-5	0.001	mg/L	0.353	----	----	0.860	0.162
Iron	7439-89-6	0.05	mg/L	1.11	----	----	0.64	1.00
Bromine	7726-95-6	0.1	mg/L	0.2	----	----	0.4	<0.1
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0.01	mg/L	0.08	----	----	0.19	0.66
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	----	----	<0.01	0.02
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	0.01	mg/L	0.08	----	----	0.02	0.39
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	0.08	----	----	0.02	0.41
EK067G: Total Phosphorus as P by Discrete Analyser								
Total Phosphorus as P	----	0.01	mg/L	0.18	----	----	0.49	1.57
EN055: Ionic Balance								
ø Total Anions	----	0.01	meq/L	3.36	----	----	8.70	1.93
ø Total Cations	----	0.01	meq/L	3.21	----	----	7.54	1.86
ø Ionic Balance	----	0.01	%	2.23	----	----	7.12	----
EP231A: Perfluoroalkyl Sulfonic Acids								

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW009_211129	0902_SW011_211129	0902_SW013_211129	0902_SW015_211129	0902_SW016_211129
				Sampling date / time	29-Nov-2021 13:06	29-Nov-2021 15:34	29-Nov-2021 14:43	29-Nov-2021 09:08	29-Nov-2021 09:41
Compound	CAS Number	LOR	Unit		ES2143536-036	ES2143536-037	ES2143536-038	ES2143536-039	ES2143536-040
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.23**	**0.19**	**0.04**	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.16**	**0.17**	**0.02**	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**1.79**	**1.75**	**0.19**	**0.13**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.11**	**0.12**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**6.19**	**6.22**	**0.20**	**0.08**	**0.01**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.10**	**0.10**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.46**	**0.42**	**0.06**	**0.04**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.07**	**0.05**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.14**	**0.14**	**0.01**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW009_211129	0902_SW011_211129	0902_SW013_211129	0902_SW015_211129	0902_SW016_211129
				Sampling date / time	29-Nov-2021 13:06	29-Nov-2021 15:34	29-Nov-2021 14:43	29-Nov-2021 09:08	29-Nov-2021 09:41
Compound	CAS Number	LOR	Unit		ES2143536-036	ES2143536-037	ES2143536-038	ES2143536-039	ES2143536-040
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**9.25**	**9.16**	**0.52**	**0.25**	**0.01**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**7.98**	**7.97**	**0.39**	**0.21**	**0.01**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**8.98**	**8.87**	**0.50**	**0.25**	**0.01**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**118**	**112**	**112**	**105**	**109**
13C8-PFOA	----	0.02	%		**104**	**105**	**109**	**107**	**110**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0902_SW018_211129	0902_SW019_211129	0902_SW020_211129	0902_SW037_211129	0902_SW022_211129
			Sampling date / time	29-Nov-2021 15:57	29-Nov-2021 15:42	29-Nov-2021 16:25	29-Nov-2021 10:28	29-Nov-2021 08:24
Compound	CAS Number	LOR	Unit	ES2143536-041	ES2143536-042	ES2143536-043	ES2143536-044	ES2143536-045
				Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	----	----	<1	----	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	----	----	<1	----	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	----	----	37	----	54
Total Alkalinity as CaCO3	----	1	mg/L	----	----	37	----	54
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	----	----	8	----	6
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	----	----	40	----	16
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	----	----	8	----	11
Magnesium	7439-95-4	1	mg/L	----	----	5	----	4
Sodium	7440-23-5	1	mg/L	----	----	24	----	10
Potassium	7440-09-7	1	mg/L	----	----	7	----	6
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	----	----	0.85	----	0.04
Manganese	7439-96-5	0.001	mg/L	----	----	0.033	----	0.061
Iron	7439-89-6	0.05	mg/L	----	----	1.19	----	0.36
Bromine	7726-95-6	0.1	mg/L	----	----	<0.1	----	<0.1
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0.01	mg/L	----	----	0.12	----	0.05
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	14797-65-0	0.01	mg/L	----	----	<0.01	----	<0.01
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	0.01	mg/L	----	----	0.16	----	0.04
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	----	----	0.16	----	0.04
EK067G: Total Phosphorus as P by Discrete Analyser								
Total Phosphorus as P	----	0.01	mg/L	----	----	0.39	----	0.16
EN055: Ionic Balance								
ø Total Anions	----	0.01	meq/L	----	----	2.03	----	1.66
ø Total Cations	----	0.01	meq/L	----	----	2.03	----	1.47
EP231A: Perfluoroalkyl Sulfonic Acids								

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW018_211129	0902_SW019_211129	0902_SW020_211129	0902_SW037_211129	0902_SW022_211129
				Sampling date / time	29-Nov-2021 15:57	29-Nov-2021 15:42	29-Nov-2021 16:25	29-Nov-2021 10:28	29-Nov-2021 08:24
Compound	CAS Number	LOR	Unit		ES2143536-041	ES2143536-042	ES2143536-043	ES2143536-044	ES2143536-045
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	**0.04**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.04**	**0.01**	**0.01**	**0.13**	**0.02**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.11**	**0.02**	**0.02**	**0.42**	**0.03**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.02**	<0.02	<0.02	**0.05**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.01**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW018_211129	0902_SW019_211129	0902_SW020_211129	0902_SW037_211129	0902_SW022_211129
				Sampling date / time	29-Nov-2021 15:57	29-Nov-2021 15:42	29-Nov-2021 16:25	29-Nov-2021 10:28	29-Nov-2021 08:24
Compound	CAS Number	LOR	Unit		ES2143536-041	ES2143536-042	ES2143536-043	ES2143536-044	ES2143536-045
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.17**	**0.03**	**0.03**	**0.67**	**0.05**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.15**	**0.03**	**0.03**	**0.55**	**0.05**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.17**	**0.03**	**0.03**	**0.67**	**0.05**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**107**	**111**	**111**	**107**
13C8-PFOA	----	0.02	%		**110**	**110**	**109**	**106**	**105**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_QC113_211129	0902_QC115_211129	----	----	----
				Sampling date / time	29-Nov-2021 12:45	29-Nov-2021 14:44	----	----	----
Compound	CAS Number	LOR	Unit		ES2143536-050	ES2143536-051	--------	--------	--------
					Result	Result	----	----	----
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	----	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	----	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		**49**	----	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L		**49**	----	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		**19**	----	----	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		**54**	----	----	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		**11**	----	----	----	----
Magnesium	7439-95-4	1	mg/L		**7**	----	----	----	----
Sodium	7440-23-5	1	mg/L		**30**	----	----	----	----
Potassium	7440-09-7	1	mg/L		**8**	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**0.69**	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		**0.160**	----	----	----	----
Iron	7439-89-6	0.05	mg/L		**1.21**	----	----	----	----
Bromine	7726-95-6	0.1	mg/L		**0.1**	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		**0.12**	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.18**	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.18**	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.61**	----	----	----	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		**2.90**	----	----	----	----
ø Total Cations	----	0.01	meq/L		**2.63**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_QC113_211129	0902_QC115_211129	----	----	----
				Sampling date / time	29-Nov-2021 12:45	29-Nov-2021 14:44	----	----	----
Compound	CAS Number	LOR	Unit		ES2143536-050	ES2143536-051	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.03**	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.02**	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.05**	**0.22**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.11**	**0.19**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.02**	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.02**	**0.07**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.01**	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_QC113_211129	0902_QC115_211129	----	----	----
				Sampling date / time	29-Nov-2021 12:45	29-Nov-2021 14:44	----	----	----
Compound	CAS Number	LOR	Unit		ES2143536-050	ES2143536-051	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.18**	**0.56**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.16**	**0.41**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.18**	**0.54**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**113**	----	----	----
13C8-PFOA	----	0.02	%		**107**	**109**	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_QC305_211129	0902_SW030_211129	----	----	----
				Sampling date / time	29-Nov-2021 17:15	29-Nov-2021 00:00	----	----	----
Compound	CAS Number	LOR	Unit		ES2143536-052	ES2143536-053	--------	--------	--------
					Result	Result	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		<0.001	----	----	----	----
Iron	7439-89-6	0.05	mg/L		<0.05	----	----	----	----
Bromine	7726-95-6	0.1	mg/L		<0.1	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_QC305_211129	0902_SW030_211129	----	----	----
				Sampling date / time	29-Nov-2021 17:15	29-Nov-2021 00:00	----	----	----
Compound	CAS Number	LOR	Unit		ES2143536-052	ES2143536-053	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**117**	**111**	----	----	----
13C8-PFOA	----	0.02	%		**107**	**106**	----	----	----

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2143536**	Page	: 1 of 27
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 30-Nov-2021
Order number	: 60612562_5.1	Date Analysis Commenced	: 01-Dec-2021
C-O-C number	: 30345	Issue Date	: 07-Dec-2021
Sampler	: ANDREW SPOOR, AYRTON DONEGAN		
Site	: NSW_0902		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 53		
No. of samples analysed	: 51		

ilac-MRA NATA
Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4055467)									
ES2143536-021	0902_SD008_211129	EA055: Moisture Content	----	0.1	%	56.5	55.9	1.0	0% - 20%
ES2143536-032	0902_SD002_211129	EA055: Moisture Content	----	0.1	%	46.6	45.4	2.7	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4050037)									
ES2142944-075	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0032	0.0028	13.0	0% - 50%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	0.0002	0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	----	0.0337	14.5	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	0.0006	0.0005	0.0	No Limit
ES2143444-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	0.0095	0.0102	6.4	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0018	0.0019	10.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4050038)									
EP2114299-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0012	0.0009	22.3	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0051	0.0051	0.0	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2143536-027	0902_SD018_211129	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4050038) - continued									
ES2143536-027	0902_SD018_211129	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0005	0.0005	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4052744)									
EB2134670-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0004	0.0003	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2142696-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0022	0.0025	9.9	0% - 50%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4050037)									
ES2142944-075	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0003	0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2143444-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4050038)									
EP2114299-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	0.0019	0.0017	8.1	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0015	0.0014	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	0.0008	0.0007	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0004	0.0004	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2143536-027	0902_SD018_211129	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4052744)									
EB2134670-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2142696-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4052744) - continued									
ES2142696-001	Anonymous	EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4050037)									
ES2142944-075	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2143444-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4050038)									
EP2114299-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4050038) - continued									
EP2114299-001	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2143536-027	0902_SD018_211129	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4052744)									
EB2134670-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2142696-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4052744) - continued									
ES2142696-001	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4050037)									
ES2142944-075	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2143444-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4050038)									
EP2114299-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	0.0066	0.0076	13.7	0% - 50%
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	0.0088	0.0099	11.8	0% - 50%
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	0.0006	0.0006	0.0	No Limit
ES2143536-027	0902_SD018_211129	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4052744)									

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4052744) - continued									
EB2134670-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2142696-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED037P: Alkalinity by PC Titrator (QC Lot: 4051255)									
ES2143536-001	0902_MW001_211129	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	277	278	0.4	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	277	278	0.4	0% - 20%
ES2143536-040	0902_SW016_211129	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	54	50	6.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	54	50	6.0	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4048187)									
ES2143439-008	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	3	2	55.4	No Limit
ES2143439-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	82	82	0.0	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4048194)									
ES2143536-039	0902_SW015_211129	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	31	31	0.0	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 4048188)									
ES2143439-008	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	34	34	0.0	0% - 20%
ES2143439-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	153	152	0.0	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 4048193)									
ES2143536-039	0902_SW015_211129	ED045G: Chloride	16887-00-6	1	mg/L	194	194	0.0	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 4052395)									
ES2141619-002	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	113	112	0.0	0% - 20%

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
ED093F: Dissolved Major Cations (QC Lot: 4052395) - continued									
ES2141619-002	Anonymous	ED093F: Magnesium	7439-95-4	1	mg/L	55	55	0.0	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	40	41	0.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	9	9	0.0	No Limit
ES2143528-001	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	9	9	0.0	No Limit
		ED093F: Magnesium	7439-95-4	1	mg/L	5	5	0.0	No Limit
		ED093F: Sodium	7440-23-5	1	mg/L	16	15	0.0	0% - 50%
		ED093F: Potassium	7440-09-7	1	mg/L	3	3	0.0	No Limit
ED093F: Dissolved Major Cations (QC Lot: 4052397)									
ES2143536-035	0902_SW008_211129	ED093F: Calcium	7440-70-2	1	mg/L	11	11	0.0	0% - 50%
		ED093F: Magnesium	7439-95-4	1	mg/L	7	7	0.0	No Limit
		ED093F: Sodium	7440-23-5	1	mg/L	30	30	0.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	8	8	0.0	No Limit
ES2143996-002	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	3	3	0.0	No Limit
		ED093F: Magnesium	7439-95-4	1	mg/L	2	2	0.0	No Limit
		ED093F: Sodium	7440-23-5	1	mg/L	8	8	0.0	No Limit
		ED093F: Potassium	7440-09-7	1	mg/L	<1	<1	0.0	No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4052393)									
ES2141619-002	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.043	0.043	0.0	0% - 20%
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	0.87	0.86	1.6	0% - 50%
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	0.2	0.2	0.0	No Limit
ES2143528-001	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.009	0.009	0.0	No Limit
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	0.12	0.12	0.0	0% - 50%
		EG020A-F: Iron	7439-89-6	0.05	mg/L	0.22	0.22	0.0	No Limit
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	<0.1	0.0	No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4052396)									
ES2143536-035	0902_SW008_211129	EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.157	0.158	1.0	0% - 20%
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	0.72	0.74	1.4	0% - 20%
		EG020A-F: Iron	7439-89-6	0.05	mg/L	1.04	1.06	1.1	0% - 20%
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	0.1	0.1	0.0	No Limit
ES2143996-002	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.013	0.013	0.0	0% - 50%
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	0.12	0.12	0.0	0% - 50%
		EG020A-F: Iron	7439-89-6	0.05	mg/L	0.25	0.26	0.0	0% - 20%
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	<0.1	0.0	No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4052410)									
EW2105070-001	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.053	0.053	0.0	0% - 20%
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	0.08	0.08	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	0.32	0.32	0.0	No Limit
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	<0.1	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4052410) - continued									
EW2105070-011	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.037	0.038	0.0	0% - 20%
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	0.16	0.18	10.6	0% - 50%
		EG020A-F: Iron	7439-89-6	0.05	mg/L	0.38	0.40	4.7	No Limit
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	<0.1	0.0	No Limit
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 4051332)									
ES2143536-001	0902_MW001_211129	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.04	0.02	57.9	No Limit
ES2143536-040	0902_SW016_211129	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.66	0.65	0.0	0% - 20%
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4048190)									
ES2143531-011	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	5.29	5.28	0.0	0% - 20%
ES2143536-039	0902_SW015_211129	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4051331)									
ES2143536-001	0902_MW001_211129	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.08	0.08	0.0	No Limit
ES2143536-040	0902_SW016_211129	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.41	0.39	4.5	0% - 20%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4051335)									
ES2143536-001	0902_MW001_211129	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.17	0.17	0.0	0% - 50%
ES2143553-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.07	0.08	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4051176)									
ES2143536-001	0902_MW001_211129	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.12	0.12	0.0	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2143536-013	0902_MW095_211129	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.12	0.12	0.0	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4051178)									
ES2143536-036	0902_SW009_211129	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	1.79	1.90	5.8	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	6.19	5.75	7.3	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.23	0.24	0.0	0% - 50%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.16	0.18	7.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.11	0.12	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2143536-042	0902_SW019_211129	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4051178) - continued									
ES2143536-042	0902_SW019_211129	EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4051176)									
ES2143536-001	0902_MW001_211129	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2143536-013	0902_MW095_211129	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4051178)									
ES2143536-036	0902_SW009_211129	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.14	0.15	10.9	0% - 50%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.10	0.10	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.46	0.46	0.0	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2143536-042	0902_SW019_211129	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4051178) - continued									
ES2143536-042	0902_SW019_211129	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4051176)									
ES2143536-001	0902_MW001_211129	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2143536-013	0902_MW095_211129	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4051178)									
ES2143536-036	0902_SW009_211129	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4051178) - continued									
ES2143536-036	0902_SW009_211129	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2143536-042	0902_SW019_211129	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4051176)									
ES2143536-001	0902_MW001_211129	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2143536-013	0902_MW095_211129	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4051178)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4051178) - continued									
ES2143536-036	0902_SW009_211129	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2143536-042	0902_SW019_211129	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4051176)									
ES2143536-001	0902_MW001_211129	EP231X: Sum of PFAS	----	0.01	µg/L	0.17	0.17	0.0	0% - 50%
ES2143536-013	0902_MW095_211129	EP231X: Sum of PFAS	----	0.01	µg/L	0.22	0.22	0.0	0% - 20%
EP231P: PFAS Sums (QC Lot: 4051178)									
ES2143536-036	0902_SW009_211129	EP231X: Sum of PFAS	----	0.01	µg/L	9.25	8.97	3.1	0% - 20%
ES2143536-042	0902_SW019_211129	EP231X: Sum of PFAS	----	0.01	µg/L	0.03	0.03	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4050037)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	122	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	120	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	119	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	118	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	122	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4050038)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	124	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	111	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	117	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	115	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4052744)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	120	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	125	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	122	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	129	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4050037)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	101	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	115	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	121	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	118	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	122	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	120	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	122	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	124	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	124	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	126	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	125	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4050038)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	94.2	71.0	135

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4050038) - continued								
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	120	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	117	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	117	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	124	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	117	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	124	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	119	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4052744)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	91.4	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	122	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	123	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	121	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	123	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	118	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	119	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	127	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4050037)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	118	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	123	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	118	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	109	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	125	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4050038)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	122	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	100	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	128	69.8	131

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4050038) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	118	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	124	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	118	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4052744)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	107	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	105	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	112	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	108	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	124	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4050037)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	115	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	119	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	119	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	115	69.2	143
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4050038)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	109	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	118	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	114	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	75.6	69.2	143
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4052744)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	117	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	117	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	119	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	115	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
ED037P: Alkalinity by PC Titrator (QCLot: 4051255)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	96.3	81.0	111
				----	50 mg/L	108	80.0	120
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4048187)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	103	82.0	122
				<1	500 mg/L	102	82.0	122
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4048194)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	105	82.0	122
				<1	500 mg/L	102	82.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 4048188)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	104	80.9	127
				<1	1000 mg/L	104	80.9	127
ED045G: Chloride by Discrete Analyser (QCLot: 4048193)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	104	80.9	127
				<1	1000 mg/L	104	80.9	127
ED093F: Dissolved Major Cations (QCLot: 4052395)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	97.8	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	99.3	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	97.7	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	101	85.0	113
ED093F: Dissolved Major Cations (QCLot: 4052397)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	98.0	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	100	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	99.8	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	100	85.0	113
EG020F: Dissolved Metals by ICP-MS (QCLot: 4052393)								
EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	94.6	80.0	116
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	92.1	82.0	110
EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	93.9	82.0	112
EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	----	----	----	----
EG020F: Dissolved Metals by ICP-MS (QCLot: 4052396)								
EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	95.3	80.0	116
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	90.6	82.0	110
EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	94.5	82.0	112
EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	----	----	----	----
EG020F: Dissolved Metals by ICP-MS (QCLot: 4052410)								
EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	91.2	80.0	116
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	90.1	82.0	110
EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	89.7	82.0	112

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 4052410) - continued								
EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4051332)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	98.4	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4048190)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	106	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4051331)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	100	91.0	113
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4051335)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	97.2	71.0	101
				<0.01	0.442 mg/L	104	72.0	108
				<0.01	1 mg/L	112	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4051176)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	121	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	111	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	107	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	107	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	107	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	99.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4051178)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	125	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	104	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	105	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	117	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	95.8	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4051176)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	102	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	123	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	123	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	120	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	111	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	123	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	122	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	120	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	111	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4051178)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4051178) - continued								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	96.8	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	115	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	110	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	114	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	112	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	110	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	115	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	117	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	106	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	107	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4051176)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	121	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	80.5	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	106	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	102	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	115	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	129	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	114	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4051178)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	113	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	88.8	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	89.0	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	92.0	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	93.3	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	116	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	108	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4051176)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	117	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	116	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	113	67.0	138

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4051176) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	113	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4051178)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	109	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	113	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	102	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	97.6	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4050037)							
ES2142944-075	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	121	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	118	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	117	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	120	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	# Not Determined	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	103	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4050038)							
EP2114299-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	126	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	116	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	97.6	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	119	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	73.2	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	118	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4052744)							
EB2134670-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	120	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	111	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	109	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	115	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	109	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	120	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4050037)							
ES2142944-075	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	107	71.0	135

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4050037) - continued							
ES2142944-075	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	114	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	120	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	118	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	120	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	122	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	118	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	122	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	129	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	122	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	124	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4050038)							
EP2114299-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	99.2	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	104	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	121	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	110	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	122	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	113	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	119	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	124	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	115	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	98.8	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	122	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4052744)							
EB2134670-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	102	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	100	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	97.2	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	114	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	116	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	119	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	129	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	110	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	116	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	102	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	99.7	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4050037)							
ES2142944-075	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	116	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	108	71.6	129

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4050037) - continued							
ES2142944-075	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	122	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	127	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	119	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	120	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	114	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4050038)							
EP2114299-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	128	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	96.5	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	120	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	101	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	101	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	119	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	123	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4052744)							
EB2134670-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	99.2	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	103	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	104	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	102	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	97.9	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	112	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	117	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4050037)							
ES2142944-075	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	104	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	116	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	120	65.0	137

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4050037) - continued							
ES2142944-075	Anonymous	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	83.6	69.2	143
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4050038)							
EP2114299-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	107	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	# Not Determined	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	# Not Determined	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	73.2	69.2	143
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4052744)							
EB2134670-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	114	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	116	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	119	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	99.2	69.2	143

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4048187)							
ES2143439-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	10 mg/L	# Not Determined	70.0	130
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4048194)							
ES2143536-039	0902_SW015_211129	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	10 mg/L	98.8	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4048188)							
ES2143439-001	Anonymous	ED045G: Chloride	16887-00-6	50 mg/L	130	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4048193)							
ES2143536-039	0902_SW015_211129	ED045G: Chloride	16887-00-6	50 mg/L	121	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 4052393)							
ES2141619-004	Anonymous	EG020A-F: Manganese	7439-96-5	1 mg/L	92.1	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 4052396)							
ES2143536-033	0902_SW003_211129	EG020A-F: Manganese	7439-96-5	1 mg/L	92.4	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 4052410)							
EW2105070-001	Anonymous	EG020A-F: Manganese	7439-96-5	1 mg/L	91.0	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4051332)							
ES2143536-001	0902_MW001_211129	EK055G: Ammonia as N	7664-41-7	1 mg/L	102	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4048190)							
ES2143531-011	Anonymous						

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4048190) - continued							
ES2143531-011	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	# Not Determined	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4051331)							
ES2143536-001	0902_MW001_211129	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	88.2	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4051335)							
ES2143536-012	0902_MW081_211129	EK067G: Total Phosphorus as P	----	1 mg/L	102	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4051176)							
ES2143536-002	0902_MW002_211129	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	114	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	109	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	108	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	106	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	105	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	100	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4051178)							
ES2143536-037	0902_SW011_211129	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	124	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	94.0	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	# Not Determined	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	92.4	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	# Not Determined	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	101	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4051176)							
ES2143536-002	0902_MW002_211129	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	96.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	111	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	121	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	119	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	114	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	122	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	121	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	119	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	104	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	100	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	117	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4051178)							
ES2143536-037	0902_SW011_211129	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	108	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	115	72.0	129

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4051178) - continued							
ES2143536-037	0902_SW011_211129	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	101	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	97.0	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	100	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	115	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	111	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	116	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	122	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	106	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	108	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4051176)							
ES2143536-002	0902_MW002_211129	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	122	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	84.6	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	108	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	103	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	116	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	122	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	115	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4051178)							
ES2143536-037	0902_SW011_211129	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	104	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	96.2	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	100	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	99.4	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	102	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	113	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	123	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4051176)							
ES2143536-002	0902_MW002_211129	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	105	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	118	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	111	67.0	138

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4051176) - continued							
ES2143536-002	0902_MW002_211129	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	114	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4051178)							
ES2143536-037	0902_SW011_211129	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	107	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	112	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	110	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	105	71.4	144

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2143536**	Page	: 1 of 13
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 30-Nov-2021
Site	: NSW_0902	Issue Date	: 07-Dec-2021
Sampler	: ANDREW SPOOR, AYRTON DONEGAN	No. of samples received	: 53
Order number	: 60612562_5.1	No. of samples analysed	: 51

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2142944--075	Anonymous	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EP2114299--001	Anonymous	**6:2 Fluorotelomer sulfonic acid (6:2 FTS)**	27619-97-2	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EP2114299--001	Anonymous	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	39108-34-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA	ES2143439--001	Anonymous	**Sulfate as SO4 - Turbidimetric**	14808-79-8	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EK057G: Nitrite as N by Discrete Analyser	ES2143531--011	Anonymous	**Nitrite as N**	14797-65-0	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2143536--037	0902_SW011_211129	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2143536--037	0902_SW011_211129	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0902_SD003_211129, 0902_SD007_211129, 0902_SD008_211129, 0902_SD009_211129, 0902_SD011_211129, 0902_SD013_211129, 0902_SD015_211129, 0902_SD016_211129, 0902_SD018_211129, 0902_SD019_211129, 0902_SD020_211129, 0902_SD022_211129, 0902_SD030_211129, 0902_SD002_211129, 0902_QC111_211129, 0902_QC114_211129	**29-Nov-2021**	**----**	----	----	**04-Dec-2021**	13-Dec-2021	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0902_SD003_211129, 0902_SD007_211129, 0902_SD008_211129, 0902_SD009_211129, 0902_SD011_211129, 0902_SD018_211129, 0902_SD019_211129, 0902_SD020_211129, 0902_SD022_211129, 0902_SD030_211129, 0902_SD002_211129, 0902_QC111_211129, 0902_QC114_211129	**29-Nov-2021**	**02-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	11-Jan-2022	✓
HDPE Soil Jar (EP231X)							
0902_SD013_211129, 0902_SD015_211129, 0902_SD016_211129	**29-Nov-2021**	**03-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	12-Jan-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0902_SD003_211129, 0902_SD007_211129, 0902_SD008_211129, 0902_SD009_211129, 0902_SD011_211129, 0902_SD018_211129, 0902_SD019_211129, 0902_SD020_211129, 0902_SD022_211129, 0902_SD030_211129, 0902_SD002_211129, 0902_QC111_211129, 0902_QC114_211129	**29-Nov-2021**	**02-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	11-Jan-2022	✓
HDPE Soil Jar (EP231X)							
0902_SD013_211129, 0902_SD015_211129, 0902_SD016_211129	**29-Nov-2021**	**03-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	12-Jan-2022	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0902_SD003_211129, 0902_SD007_211129, 0902_SD008_211129, 0902_SD009_211129, 0902_SD011_211129, 0902_SD018_211129, 0902_SD019_211129, 0902_SD020_211129, 0902_SD022_211129, 0902_SD030_211129, 0902_SD002_211129, 0902_QC111_211129, 0902_QC114_211129	**29-Nov-2021**	**02-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	11-Jan-2022	✓
HDPE Soil Jar (EP231X) 0902_SD013_211129, 0902_SD015_211129, 0902_SD016_211129	**29-Nov-2021**	**03-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	12-Jan-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD003_211129, 0902_SD007_211129, 0902_SD008_211129, 0902_SD009_211129, 0902_SD011_211129, 0902_SD018_211129, 0902_SD019_211129, 0902_SD020_211129, 0902_SD022_211129, 0902_SD030_211129, 0902_SD002_211129, 0902_QC111_211129, 0902_QC114_211129	**29-Nov-2021**	**02-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	11-Jan-2022	✓
HDPE Soil Jar (EP231X) 0902_SD013_211129, 0902_SD015_211129, 0902_SD016_211129	**29-Nov-2021**	**03-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	12-Jan-2022	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) 0902_SD003_211129, 0902_SD007_211129, 0902_SD008_211129, 0902_SD009_211129, 0902_SD011_211129, 0902_SD018_211129, 0902_SD019_211129, 0902_SD020_211129, 0902_SD022_211129, 0902_SD030_211129, 0902_SD002_211129, 0902_QC111_211129, 0902_QC114_211129	**29-Nov-2021**	**02-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	11-Jan-2022	✓
HDPE Soil Jar (EP231X) 0902_SD013_211129, 0902_SD015_211129, 0902_SD016_211129	**29-Nov-2021**	**03-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	12-Jan-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED037P: Alkalinity by PC Titrator							
Clear Plastic Bottle - Natural (ED037-P)							
0902_MW001_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_SW003_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW020_211129, 0902_SW022_211129, 0902_QC113_211129	**29-Nov-2021**	**----**	----	----	**02-Dec-2021**	13-Dec-2021	✓
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA							
Clear Plastic Bottle - Natural (ED041G)							
0902_MW001_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_SW003_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW020_211129, 0902_SW022_211129, 0902_QC113_211129	**29-Nov-2021**	**----**	----	----	**01-Dec-2021**	27-Dec-2021	✓
ED045G: Chloride by Discrete Analyser							
Clear Plastic Bottle - Natural (ED045G)							
0902_MW001_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_SW003_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW020_211129, 0902_SW022_211129, 0902_QC113_211129	**29-Nov-2021**	**----**	----	----	**01-Dec-2021**	27-Dec-2021	✓
ED093F: Dissolved Major Cations							
Clear Plastic Bottle - Nitric Acid; Filtered (ED093F)							
0902_MW001_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_SW003_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW020_211129, 0902_SW022_211129, 0902_QC113_211129	**29-Nov-2021**	**----**	----	----	**03-Dec-2021**	27-Dec-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
0902_MW001_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_SW003_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW020_211129, 0902_SW022_211129, 0902_QC113_211129, 0902_QC305_211129	**29-Nov-2021**	**----**	----	----	**03-Dec-2021**	28-May-2022	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_MW001_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_SW003_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW020_211129, 0902_SW022_211129, 0902_QC113_211129	**29-Nov-2021**	**----**	----	----	**02-Dec-2021**	27-Dec-2021	✓
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G)							
0902_MW001_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_SW003_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW020_211129, 0902_SW022_211129, 0902_QC113_211129	**29-Nov-2021**	**----**	----	----	**01-Dec-2021**	01-Dec-2021	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW001_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_SW003_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW020_211129, 0902_SW022_211129, 0902_QC113_211129	**29-Nov-2021**	**----**	----	----	**02-Dec-2021**	27-Dec-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_MW001_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_SW003_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW020_211129, 0902_SW022_211129, 0902_QC113_211129	**29-Nov-2021**	**02-Dec-2021**	27-Dec-2021	✓	**02-Dec-2021**	27-Dec-2021	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW001_211129, 0902_MW002_211129, 0902_MW012_211129, 0902_MW013_211129, 0902_MW014_211129, 0902_MW015_211129, 0902_MW016_211129, 0902_MW017_211129, 0902_MW059_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_MW113_211129, 0902_MW114_211129, 0902_SW002_211129, 0902_SW003_211129, 0902_SW007_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW011_211129, 0902_SW013_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW018_211129, 0902_SW019_211129, 0902_SW020_211129, 0902_SW037_211129, 0902_SW022_211129, 0902_QC110_211129, 0902_QC112_211129, 0902_QC113_211129, 0902_QC115_211129, 0902_QC305_211129, 0902_SW030_211129	**29-Nov-2021**	**03-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	28-May-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW001_211129, 0902_MW002_211129, 0902_MW012_211129, 0902_MW013_211129, 0902_MW014_211129, 0902_MW015_211129, 0902_MW016_211129, 0902_MW017_211129, 0902_MW059_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_MW113_211129, 0902_MW114_211129, 0902_SW002_211129, 0902_SW003_211129, 0902_SW007_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW011_211129, 0902_SW013_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW018_211129, 0902_SW019_211129, 0902_SW020_211129, 0902_SW037_211129, 0902_SW022_211129, 0902_QC110_211129, 0902_QC112_211129, 0902_QC113_211129, 0902_QC115_211129, 0902_QC305_211129, 0902_SW030_211129	**29-Nov-2021**	**03-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	28-May-2022	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0902_MW001_211129, 0902_MW002_211129, 0902_MW012_211129, 0902_MW013_211129, 0902_MW014_211129, 0902_MW015_211129, 0902_MW016_211129, 0902_MW017_211129, 0902_MW059_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_MW113_211129, 0902_MW114_211129, 0902_SW002_211129, 0902_SW003_211129, 0902_SW007_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW011_211129, 0902_SW013_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW018_211129, 0902_SW019_211129, 0902_SW020_211129, 0902_SW037_211129, 0902_SW022_211129, 0902_QC110_211129, 0902_QC112_211129, 0902_QC113_211129, 0902_QC115_211129, 0902_QC305_211129, 0902_SW030_211129	**29-Nov-2021**	**03-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	28-May-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW001_211129, 0902_MW002_211129, 0902_MW012_211129, 0902_MW013_211129, 0902_MW014_211129, 0902_MW015_211129, 0902_MW016_211129, 0902_MW017_211129, 0902_MW059_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_MW113_211129, 0902_MW114_211129, 0902_SW002_211129, 0902_SW003_211129, 0902_SW007_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW011_211129, 0902_SW013_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW018_211129, 0902_SW019_211129, 0902_SW020_211129, 0902_SW037_211129, 0902_SW022_211129, 0902_QC110_211129, 0902_QC112_211129, 0902_QC113_211129, 0902_QC115_211129, 0902_QC305_211129, 0902_SW030_211129	**29-Nov-2021**	**03-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	28-May-2022	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0902_MW001_211129, 0902_MW002_211129, 0902_MW012_211129, 0902_MW013_211129, 0902_MW014_211129, 0902_MW015_211129, 0902_MW016_211129, 0902_MW017_211129, 0902_MW059_211129, 0902_MW081_211129, 0902_MW095_211129, 0902_MW097_211129, 0902_MW098_211129, 0902_MW113_211129, 0902_MW114_211129, 0902_SW002_211129, 0902_SW003_211129, 0902_SW007_211129, 0902_SW008_211129, 0902_SW009_211129, 0902_SW011_211129, 0902_SW013_211129, 0902_SW015_211129, 0902_SW016_211129, 0902_SW018_211129, 0902_SW019_211129, 0902_SW020_211129, 0902_SW037_211129, 0902_SW022_211129, 0902_QC110_211129, 0902_QC112_211129, 0902_QC113_211129, 0902_QC115_211129, 0902_QC305_211129, 0902_SW030_211129	**29-Nov-2021**	**03-Dec-2021**	28-May-2022	✓	**06-Dec-2021**	28-May-2022	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	6	58	10.34	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	58	5.17	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	58	5.17	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	58	5.17	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Alkalinity by PC Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	3	26	11.54	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	6	59	10.17	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	4	33	12.12	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	15	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	39	10.26	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	3	25	12.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by PC Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	4	26	15.38	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	3	59	5.08	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	33	6.06	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	15	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	39	5.13	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	4	25	16.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	20	15.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Method Blanks (MB) - Continued							
Chloride by Discrete Analyser	ED045G	2	26	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	33	**6.06**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	39	**5.13**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	25	**8.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	26	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	39	**5.13**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	25	**8.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Alkalinity by PC Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. PC Titrate) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G.The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride.in the presence of ferric ions the librated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm APHA seal method 2 017-1-L
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030F. This method is compliant with NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

CHAIN OF CUSTODY

ALS COC#: 30346 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Private Property

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME: Awangmi 14/12/21 2:30 pm

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: °C

Other comments: 16.3°C

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW120_211214		14/12/2021 12:37 PM	Water	ALS: 0 Non ALS: 0	No		X		
002	0902_MW121_211214		14/12/2021 12:38 PM	Water	ALS: 0 Non ALS: 0	No		X		
003	0902_SW032_211214		14/12/2021 12:40 PM	Water	ALS: 4 Non ALS: 0	No		X		
004	0902_SD032_211214		14/12/2021 12:41 PM	Soil	ALS: 1 Non ALS: 0	No	X			
005	0902_QC116_211214		14/12/2021 12:45 PM	Water	ALS: 4 Non ALS: 0	No		X		
006	0902_QC306_211214		14/12/2021 12:43 PM	Water	ALS: 4 Non ALS: 0	No		X		

Environmental Division
Sydney

Work Order Reference
ES2145705

Telephone : +61-2-8784 8555

CHAIN OF CUSTODY

ALS COC#: **30346** *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Private Property

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins
PRIMARY SAMPLER: Ayrton Donegan

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, ayrton.donegan@aecom.com, andrew.spoor@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
003	0902_SW032_211214	HDPE (no PTFE)	20 mL	00352101065918	Grey	No	
003	0902_SW032_211214	HDPE (no PTFE)	20 mL	00352101065577	Grey	No	
003	0902_SW032_211214	HDPE (no PTFE)	20 mL	00352101065670	Grey	No	
003	0902_SW032_211214	HDPE (no PTFE)	20 mL	00352101065423	Grey	No	
004	0902_SD032_211214	HDPE Soil Jar	200 mL	00621019087311	Grey	No	
005	0902_QC116_211214	HDPE (no PTFE)	20 mL	00352101065811	Grey	No	
005	0902_QC116_211214	HDPE (no PTFE)	20 mL	00352101065515	Grey	No	
005	0902_QC116_211214	HDPE (no PTFE)	20 mL	00352101065754	Grey	No	
005	0902_QC116_211214	HDPE (no PTFE)	20 mL	00352101065510	Grey	No	
006	0902_QC306_211214	HDPE (no PTFE)	20 mL	00352101080282	Grey	No	
006	0902_QC306_211214	HDPE (no PTFE)	20 mL	00352101080371	Grey	No	
006	0902_QC306_211214	HDPE (no PTFE)	20 mL	00352101080170	Grey	No	
006	0902_QC306_211214	HDPE (no PTFE)	20 mL	00352101080610	Grey	No	

Total Bottle Count: ALS: 13, Non ALS: 0

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2145705**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Christopher.Redford@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 3
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 30346	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Private Property		
Sampler	: ANDREW SPOOR, AYRTON DONEGAN		

Dates

Date Samples Received	: 15-Dec-2021 14:30	Issue Date	: 15-Dec-2021
Client Requested Due Date	: 23-Dec-2021	Scheduled Reporting Date	: **23-Dec-2021**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 16.3'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 6 / 6

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2145705-004	14-Dec-2021 12:41	0902_SD032_211214	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (28 analytes)
ES2145705-001	14-Dec-2021 12:37	0902_MW120_211214	✓
ES2145705-002	14-Dec-2021 12:38	0902_MW121_211214	✓
ES2145705-003	14-Dec-2021 12:40	0902_SW032_211214	✓
ES2145705-005	14-Dec-2021 12:45	0902_QC116_211214	✓
ES2145705-006	14-Dec-2021 12:43	0902_QC306_211214	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

ANDREW SPOOR

- *AU Certificate of Analysis - NATA (COA)	Email	Andrew.Spoor@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Andrew.Spoor@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Andrew.Spoor@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Andrew.Spoor@aecom.com
- Chain of Custody (CoC) (COC)	Email	Andrew.Spoor@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Andrew.Spoor@aecom.com
- EDI Format - XTab (XTAB)	Email	Andrew.Spoor@aecom.com

AYRTON DONEGAN

- *AU Certificate of Analysis - NATA (COA)	Email	ayrton.donegan@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	ayrton.donegan@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	ayrton.donegan@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	ayrton.donegan@aecom.com
- Chain of Custody (CoC) (COC)	Email	ayrton.donegan@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	ayrton.donegan@aecom.com
- EDI Format - XTab (XTAB)	Email	ayrton.donegan@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2145705**	Page	: 1 of 11
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 14-Dec-2021 14:30
Order number	: 60612562_5.1	Date Analysis Commenced	: 15-Dec-2021
C-O-C number	: 30346	Issue Date	: 22-Dec-2021 11:43
Sampler	: ANDREW SPOOR, AYRTON DONEGAN		
Site	: Private Property		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 6		
No. of samples analysed	: 6		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231:Poor matrix spike recovery due to sample matrix interferences.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW120_211214	0902_MW121_211214	0902_QC116_211214	----	----
				Sampling date / time	14-Dec-2021 12:37	14-Dec-2021 12:38	14-Dec-2021 12:45	----	----
Compound	CAS Number	LOR	Unit		ES2145705-001	ES2145705-002	ES2145705-005	--------	--------
					Result	Result	Result	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.01**	<0.01	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	**0.01**	**0.02**	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW120_211214	0902_MW121_211214	0902_QC116_211214	----	----
				Sampling date / time	14-Dec-2021 12:37	14-Dec-2021 12:38	14-Dec-2021 12:45	----	----
Compound	CAS Number	LOR	Unit		ES2145705-001	ES2145705-002	ES2145705-005	--------	--------
					Result	Result	Result	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.02**	**0.02**	**0.02**	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	**0.02**	**0.02**	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.02**	**0.02**	**0.02**	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**80.9**	**80.0**	**85.8**	----	----
13C8-PFOA	----	0.02	%		**96.0**	**89.0**	**93.2**	----	----

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)				Sample ID	0902_QC306_211214	----	----	----	----
				Sampling date / time	14-Dec-2021 12:43	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2145705-006	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC306_211214	----	----	----	----
				Sampling date / time	14-Dec-2021 12:43	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2145705-006	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**80.5**	----	----	----	----
13C8-PFOA	----	0.02	%		**95.0**	----	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0902_SD032_211214	----	----	----	----
			Sampling date / time	14-Dec-2021 12:41	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2145705-004	--------	--------	--------	--------
				Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**25.8**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	**0.0003**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0015**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0044**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	----	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD032_211214	----	----	----	----
				Sampling date / time	14-Dec-2021 12:41	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2145705-004	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0062**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0059**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0062**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**100**	----	----	----	----
13C8-PFOA	----	0.0002	%		**95.5**	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW032_211214	----	----	----	----
				Sampling date / time	14-Dec-2021 12:40	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2145705-003	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.15**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.12**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.92**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.05**	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**1.62**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.07**	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.24**	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.04**	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.07**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW032_211214	----	----	----	----
				Sampling date / time	14-Dec-2021 12:40	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2145705-003	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**3.28**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**2.54**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**3.11**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**84.1**	----	----	----	----
13C8-PFOA	----	0.02	%		**89.3**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **RINSATE**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SEDIMENT**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SURFACE WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2145705**	Page	: 1 of 11
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Christopher Redford
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 14-Dec-2021
Order number	: 60612562_5.1	Date Analysis Commenced	: 15-Dec-2021
C-O-C number	: 30346	Issue Date	: 22-Dec-2021
Sampler	: ANDREW SPOOR, AYRTON DONEGAN		
Site	: Private Property		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 6		
No. of samples analysed	: 6		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4080763)									
ES2145858-001	Anonymous	EA055: Moisture Content	----	0.1	%	2.9	3.0	3.4	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4079722)									
EP2115346-022	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2145651-008	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4079722)									
EP2115346-022	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	0.0005	0.0005	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0015	0.0015	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	0.0005	0.0005	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0003	0.0003	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4079722) - continued									
EP2115346-022	Anonymous	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2145651-008	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4079722)									
EP2115346-022	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2145651-008	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4079722)									

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4079722) - continued									
EP2115346-022	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	0.0015	0.0014	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	0.0008	0.0007	13.6	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2145651-008	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4085919)									
ES2145705-001	0902_MW120_211214	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2145705-003	0902_SW032_211214	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.92	1.06	14.9	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	1.62	1.80	10.3	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.15	0.18	17.6	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.12	0.14	16.8	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.05	0.05	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4085919)									
ES2145705-001	0902_MW120_211214	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4085919) - continued									
ES2145705-001	0902_MW120_211214	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2145705-003	0902_SW032_211214	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.07	0.08	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.07	0.09	15.4	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.24	0.28	13.4	0% - 50%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4085919)									
ES2145705-001	0902_MW120_211214	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2145705-003	0902_SW032_211214	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4085919)									
ES2145705-001	0902_MW120_211214	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2145705-003	0902_SW032_211214	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4085919)									
ES2145705-001	0902_MW120_211214	EP231X: Sum of PFAS	----	0.01	µg/L	0.02	0.02	0.0	No Limit
ES2145705-003	0902_SW032_211214	EP231X: Sum of PFAS	----	0.01	µg/L	3.28	3.72	12.6	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4079722)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.4	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.2	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.0	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.0	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.4	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	85.2	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4079722)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	97.4	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.4	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	97.2	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.8	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.2	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.2	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	83.2	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	97.0	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4079722)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	99.7	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	85.4	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	86.2	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	92.0	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.0	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4079722)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	122	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	125	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	98.0	65.0	137

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4079722) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	115	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4085919)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	124	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	122	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	115	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	115	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	97.4	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	109	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4085919)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	104	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	124	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	127	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	128	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	125	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	113	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	119	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	97.2	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	119	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	85.2	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4085919)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	109	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	101	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	101	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	104	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	82.1	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	125	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	115	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4085919)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	116	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	112	64.0	140

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4085919) - continued								
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	114	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	116	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4079722)							
EP2115346-022	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	101	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	90.8	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	77.6	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	70.4	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	81.6	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	83.6	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4079722)							
EP2115346-022	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	91.6	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	85.6	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	108	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	118	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	94.4	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	91.2	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	81.2	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	78.4	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	103	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	82.0	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	99.4	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4079722)							
EP2115346-022	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	83.6	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	93.6	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	80.9	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	74.8	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	89.4	65.1	134

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4079722) - continued							
EP2115346-022	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	99.2	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	70.4	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4079722)							
EP2115346-022	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	137	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	136	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	103	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	# 26.4	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4085919)							
ES2145705-002	0902_MW121_211214	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	126	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	123	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	120	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	116	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	105	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	111	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4085919)							
ES2145705-002	0902_MW121_211214	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	112	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	128	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	127	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	124	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	125	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	110	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	121	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	117	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	91.6	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	118	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	83.9	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4085919)							
ES2145705-002	0902_MW121_211214	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	114	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	106	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	94.3	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	106	66.0	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4085919) - continued							
ES2145705-002	0902_MW121_211214	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	76.9	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	126	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	117	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4085919)							
ES2145705-002	0902_MW121_211214	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	125	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	108	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	116	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	112	71.4	144

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2145705**	Page	: 1 of 5
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 14-Dec-2021
Site	: Private Property	Issue Date	: 22-Dec-2021
Sampler	: ANDREW SPOOR, AYRTON DONEGAN	No. of samples received	: 6
Order number	: 60612562_5.1	No. of samples analysed	: 6

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EP2115346--022	Anonymous	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	120226-60-0	26.4 %	69.2-143%	**Recovery less than lower data quality objective**

Outliers : Frequency of Quality Control Samples

Matrix: **SOIL**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Moisture Content	1	13	7.69	10.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / ***Container*** / Client Sample ID(s)	***Sample Date***	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	***Date analysed***	*Due for analysis*	*Evaluation*
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055) 0902_SD032_211214	**14-Dec-2021**	**----**	----	----	**16-Dec-2021**	28-Dec-2021	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD032_211214	**14-Dec-2021**	**16-Dec-2021**	12-Jun-2022	✓	**16-Dec-2021**	25-Jan-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X) 0902_SD032_211214	**14-Dec-2021**	**16-Dec-2021**	12-Jun-2022	✓	**16-Dec-2021**	25-Jan-2022	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0902_SD032_211214	**14-Dec-2021**	**16-Dec-2021**	12-Jun-2022	✓	**16-Dec-2021**	25-Jan-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD032_211214	**14-Dec-2021**	**16-Dec-2021**	12-Jun-2022	✓	**16-Dec-2021**	25-Jan-2022	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0902_SD032_211214	**14-Dec-2021**	**16-Dec-2021**	12-Jun-2022	✓	**16-Dec-2021**	25-Jan-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW120_211214, 0902_MW121_211214, 0902_SW032_211214, 0902_QC116_211214, 0902_QC306_211214	**14-Dec-2021**	**20-Dec-2021**	12-Jun-2022	✓	**21-Dec-2021**	12-Jun-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW120_211214, 0902_MW121_211214, 0902_SW032_211214, 0902_QC116_211214, 0902_QC306_211214	**14-Dec-2021**	**20-Dec-2021**	12-Jun-2022	✓	**21-Dec-2021**	12-Jun-2022	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0902_MW120_211214, 0902_MW121_211214, 0902_SW032_211214, 0902_QC116_211214, 0902_QC306_211214	**14-Dec-2021**	**20-Dec-2021**	12-Jun-2022	✓	**21-Dec-2021**	12-Jun-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW120_211214, 0902_MW121_211214, 0902_SW032_211214, 0902_QC116_211214, 0902_QC306_211214	**14-Dec-2021**	**20-Dec-2021**	12-Jun-2022	✓	**21-Dec-2021**	12-Jun-2022	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0902_MW120_211214, 0902_MW121_211214, 0902_SW032_211214, 0902_QC116_211214, 0902_QC306_211214	**14-Dec-2021**	**20-Dec-2021**	12-Jun-2022	✓	**21-Dec-2021**	12-Jun-2022	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	13	**7.69**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	15	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

AECOM

Chain of Custody

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Email reports to: Geoff.Tredinnick@aecom.com; catherine.hansen@aecom.com; derp.labreports@esdat.com.au; mat.jenkins@aecom.com

Laboratory Details
Lab. Name: Envirolab
Lab. Address: 12 Ashley St, Chatswood NSW 2067
Contact Name:
Lab. Ref:
Tel: 0287 848 555
Fax: NA
Preliminary Report by:
Final Report by:
Lab Quote No: SY/139/19 v4

Sampled By: Ayrton Donegan, Andrew Spoor
Project Name: NSW_0902_PFASOMP
AECOM Project #: 60612562 - 5.1
Purchase Order No:

Specifications: Please report in ESdat format only
Please send ESdat files to *DERP.labreports@esdat.com.au* and ensure that the files use the PROJECT NAME

	Yes (tick)
1. Urgent TAT required? (please circle: 24hr 48hr **5 days**)	
2. Fast TAT Guarantee Required?	
3. Is any sediment layer present in waters to be excluded from extractions?	
4. % extraneous material removed from samples to be reported as per NEPM 5.1.1?	
5. Special storage requirements? (details: _____)	

6. Report Format: ESdat
7. Project Manager: Geoff Tredinnick

Analysis Request

Notes
Major Ions to include: calcium, magnesium, potassium, sodium, chloride, sulphate, bicarbonate, carbonate, flouride.
TaT: Standard Turn Around Time on all samples.

Lab. ID	Sample ID	Sampling Date	Matrix: soil	water	sed	Preservation: filted	acid	ice	other	Container (No. & type)	PFAS extended Suite (standard LOR)	Nutrients (ammonia, nitrate, nitrite, phosphorous)	Aluminium, bromine, iron, maganese (Field filtered)	Major Cations and Major anions	HOLD
1	0902_QC200_211122	22/11/2021		X				X			X				
2	0902_QC201_211122	22/11/2021		X				X			X				
3	0902_QC202_211123	23/11/2021		X				X			X				
4	0902_QC203_211123	23/11/2021		X				X			X				
5	0902_QC204_211123	23/11/2021		X				X			X				
6	0902_QC205_211123	23/11/2021		X				X			X				
7	0902_QC206_211124	24/11/2021		X				X			X				
8	0902_QC207_211124	24/11/2021		X				X			X				
9	0902_QC208_211126	26/11/2021		X				X			X				
10	0902_QC209_211126	26/11/2021			X			X			X				
11	0902_QC210_211129	29/11/2021			X			X			X				
12	0902_QC211_211129	29/11/2021		X				X			X	X	X	X	
13	0902_QC212_211129	29/11/2021		X				X			X				
14	0902_QC213_211129	29/11/2021		X				X			X				
15	0902_QC214_211129	29/11/2021		X				X			X	X	X	X	
16	0902_QC215_211129	29/11/2021			X			X			X				

Comments: Please send ESdat files to DERP.labreports@esdat.com.au and ensure that the files use the PROJECT NAME
Temp. received: 5 °C
Report & invoice: Geoff.Tredinnick@aecom.com, catherine.hansen@aecom.com
Lab Report No.
Esky ID

Relinquished by: Mat Jenkins — Signed: — Date:
Received by: — Signed: — Date:

Relinquished by: — Signed: — Date:
Received by: Christine — Signed: — Date: 30/11/21 1410

ENVIROLAB GROUP

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 284161
Date Received: 30/11/21
Time Received: 1410
Received By: CH
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	Ayrton Donegan

Sample Login Details

Your reference	60612562-5.1, NSW_0902_PFASOMP
Envirolab Reference	284165
Date Sample Received	30/11/2021
Date Instructions Received	30/11/2021
Date Results Expected to be Reported	07/12/2021

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	13 Water, 3 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	5
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Samples came in a bag - 1 x jar in QC213 labelled as QC212, assumed to be QC213

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	PFAS in Waters Extended	Ammonia as N in water	Nitrite as N in water	Nitrate as N in water	Metals in Waters -Acid extractable	HM in water - dissolved	Calcium - Dissolved	Potassium - Dissolved	Sodium - Dissolved	Magnesium - Dissolved	Hardness	Hydroxide Alkalinity (OH-) as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Total Alkalinity as CaCO3	Sulphate, SO4	Chloride, Cl	Ionic Balance	PFAS in Soils Extended
0902_QC200_211122	✓																		
0902_QC201_211122	✓																		
0902_QC202_211123	✓																		
0902_QC203_211123	✓																		
0902_QC204_211123	✓																		
0902_QC205_211123	✓																		
0902_QC206_211124	✓																		
0902_QC207_211124	✓																		
0902_QC208_211126	✓																		
0902_QC209_211126																			✓
0902_QC210_211129																			✓
0902_QC211_211129	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
0902_QC212_211129	✓																		
0902_QC213_211129	✓																		
0902_QC214_211129	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
0902_QC215_211129																			✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt. Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

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CERTIFICATE OF ANALYSIS 284165

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	Ayrton Donegan
Address	PO Box Q410, QVB Post Office, Sydney, NSW, 1230

Sample Details

Your Reference	**60612562-5.1, NSW_0902_PFASOMP**
Number of Samples	13 Water, 3 Soil
Date samples received	30/11/2021
Date completed instructions received	30/11/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	07/12/2021
Date of Issue	07/12/2021

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Results Approved By
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Hannah Nguyen, Metals Supervisor
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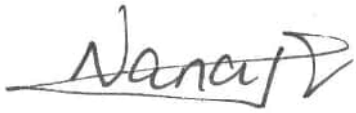

Nancy Zhang, Laboratory Manager

PFAS in Waters Extended						
Our Reference		284165-1	284165-2	284165-3	284165-4	284165-5
Your Reference	UNITS	0902_QC200_211122	0902_QC201_211122	0902_QC202_211123	0902_QC203_211123	0902_QC204_211123
Date Sampled		22/11/2021	22/11/2021	23/11/2021	23/11/2021	23/11/2021
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	01/12/2021	01/12/2021	01/12/2021	01/12/2021	01/12/2021
Date analysed	-	01/12/2021	01/12/2021	01/12/2021	01/12/2021	01/12/2021
Perfluorobutanesulfonic acid	µg/L	0.01	0.01	<0.01	0.14	2.7
Perfluoropentanesulfonic acid	µg/L	<0.01	<0.01	<0.01	0.13	2.7
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.07	0.03	0.09	1.2	15
Perfluoroheptanesulfonic acid	µg/L	<0.01	<0.01	<0.01	0.11	0.84
Perfluorooctanesulfonic acid PFOS	µg/L	0.13	<0.01	0.06	4.1	7.6
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	µg/L	<0.02	<0.02	<0.02	0.08	0.97
Perfluoropentanoic acid	µg/L	<0.02	<0.02	<0.02	0.1	1.4
Perfluorohexanoic acid	µg/L	<0.01	<0.01	0.01	0.29	7.0
Perfluoroheptanoic acid	µg/L	<0.01	<0.01	<0.01	0.05	1.1
Perfluorooctanoic acid PFOA	µg/L	<0.01	<0.01	<0.01	0.12	1.9
Perfluorononanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	µg/L	<0.01	<0.01	<0.01	0.09	0.1
8:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	97	96	101	98	100
Surrogate $^{13}C_2$ *PFOA*	%	103	102	102	105	102
Extracted ISTD $^{13}C_3$ *PFBS*	%	111	115	110	111	112
Extracted ISTD $^{18}O_2$ *PFHxS*	%	108	109	107	108	101
Extracted ISTD $^{13}C_4$ *PFOS*	%	108	109	106	107	103

PFAS in Waters Extended						
Our Reference		284165-1	284165-2	284165-3	284165-4	284165-5
Your Reference	UNITS	0902_QC200_211122	0902_QC201_211122	0902_QC202_211123	0902_QC203_211123	0902_QC204_211123
Date Sampled		22/11/2021	22/11/2021	23/11/2021	23/11/2021	23/11/2021
Type of sample		Water	Water	Water	Water	Water
Extracted ISTD $^{13}C_4$ *PFBA*	%	102	105	99	106	99
Extracted ISTD $^{13}C_3$ *PFPeA*	%	105	105	102	107	100
Extracted ISTD $^{13}C_2$ *PFHxA*	%	102	102	95	106	94
Extracted ISTD $^{13}C_4$ *PFHpA*	%	98	98	97	101	88
Extracted ISTD $^{13}C_4$ *PFOA*	%	111	111	108	110	106
Extracted ISTD $^{13}C_5$ *PFNA*	%	108	108	109	108	105
Extracted ISTD $^{13}C_2$ *PFDA*	%	113	114	109	111	109
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	123	115	118	126	126
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	116	112	112	112	111
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	93	106	89	104	70
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	84	67	59	103	71
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	110	102	83	121	100
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	124	112	106	131	123
Extracted ISTD $^{13}C_8$ *FOSA*	%	107	108	106	110	108
Extracted ISTD d_3 *N MeFOSA*	%	104	105	104	106	102
Extracted ISTD d_5 *N EtFOSA*	%	101	104	104	104	100
Extracted ISTD d_7 *N MeFOSE*	%	112	113	109	114	112
Extracted ISTD d_9 *N EtFOSE*	%	114	115	113	118	112
Extracted ISTD d_3 *N MeFOSAA*	%	107	105	98	116	106
Extracted ISTD d_5 *N EtFOSAA*	%	131	121	106	130	121
Total Positive PFHxS & PFOS	µg/L	0.20	0.03	0.14	5.3	23
Total Positive PFOA & PFOS	µg/L	0.13	<0.01	0.06	4.3	9.5
Total Positive PFAS	µg/L	0.21	0.04	0.15	6.4	41

PFAS in Waters Extended						
Our Reference		284165-6	284165-7	284165-8	284165-9	284165-12
Your Reference	UNITS	0902_QC205_211123	0902_QC206_211124	0902_QC207_211124	0902_QC208_211126	0902_QC211_211129
Date Sampled		23/11/2021	24/11/2021	24/11/2021	26/11/2021	29/11/2021
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	01/12/2021	01/12/2021	01/12/2021	01/12/2021	01/12/2021
Date analysed	-	01/12/2021	01/12/2021	01/12/2021	01/12/2021	01/12/2021
Perfluorobutanesulfonic acid	µg/L	0.20	0.05	0.64	0.21	1.6
Perfluoropentanesulfonic acid	µg/L	0.20	0.07	0.65	0.12	1.5
Perfluorohexanesulfonic acid - PFHxS	µg/L	1.3	1.3	4.2	0.88	12
Perfluoroheptanesulfonic acid	µg/L	0.04	0.06	0.27	0.06	0.83
Perfluorooctanesulfonic acid PFOS	µg/L	0.69	2.0	2.3	4.1	29
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	µg/L	0.04	0.06	0.08	0.46	0.67
Perfluoropentanoic acid	µg/L	0.04	0.09	0.2	0.42	0.93
Perfluorohexanoic acid	µg/L	0.20	0.25	0.79	0.48	3.6
Perfluoroheptanoic acid	µg/L	0.04	0.07	0.11	0.14	0.58
Perfluorooctanoic acid PFOA	µg/L	0.09	0.18	0.17	0.23	1.0
Perfluorononanoic acid	µg/L	<0.01	0.02	<0.01	0.11	0.12
Perfluorodecanoic acid	µg/L	<0.02	<0.02	<0.02	0.09	0.04
Perfluoroundecanoic acid	µg/L	<0.02	<0.02	<0.02	0.03	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	µg/L	<0.01	0.05	0.01	0.04	0.07
8:2 FTS	µg/L	<0.02	<0.02	<0.02	0.1	0.04
10:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	98	96	100	97	100
Surrogate $^{13}C_2$ *PFOA*	%	103	105	106	104	103
Extracted ISTD $^{13}C_3$ *PFBS*	%	117	117	114	110	106
Extracted ISTD $^{18}O_2$ *PFHxS*	%	104	105	105	105	102
Extracted ISTD $^{13}C_4$ *PFOS*	%	106	108	108	103	97
Extracted ISTD $^{13}C_4$ *PFBA*	%	106	101	109	93	92

PFAS in Waters Extended						
Our Reference		284165-6	284165-7	284165-8	284165-9	284165-12
Your Reference	UNITS	0902_QC205_211123	0902_QC206_211124	0902_QC207_211124	0902_QC208_211126	0902_QC211_211129
Date Sampled		23/11/2021	24/11/2021	24/11/2021	26/11/2021	29/11/2021
Type of sample		Water	Water	Water	Water	Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	106	109	104	102	99
Extracted ISTD $^{13}C_2$ *PFHxA*	%	101	107	99	102	96
Extracted ISTD $^{13}C_4$ *PFHpA*	%	98	99	100	97	91
Extracted ISTD $^{13}C_4$ *PFOA*	%	109	110	109	106	108
Extracted ISTD $^{13}C_5$ *PFNA*	%	108	105	106	104	89
Extracted ISTD $^{13}C_2$ *PFDA*	%	111	107	108	109	110
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	124	122	129	118	124
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	116	112	118	111	108
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	78	95	102	80	83
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	76	115	74	105	102
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	105	137	106	121	120
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	130	140	124	124	133
Extracted ISTD $^{13}C_8$ *FOSA*	%	108	108	109	107	105
Extracted ISTD d_3 *N MeFOSA*	%	107	108	108	103	103
Extracted ISTD d_5 *N EtFOSA*	%	102	108	107	99	99
Extracted ISTD d_7 *N MeFOSE*	%	114	120	119	111	113
Extracted ISTD d_9 *N EtFOSE*	%	111	111	114	110	109
Extracted ISTD d_3 *N MeFOSAA*	%	108	115	112	114	116
Extracted ISTD d_5 *N EtFOSAA*	%	122	135	125	128	134
Total Positive PFHxS & PFOS	µg/L	2.0	3.3	6.5	5.0	41
Total Positive PFOA & PFOS	µg/L	0.78	2.2	2.5	4.3	30
Total Positive PFAS	µg/L	2.8	4.2	9.4	7.5	52

PFAS in Waters Extended				
Our Reference		284165-13	284165-14	284165-15
Your Reference	UNITS	0902_QC212_211129	0902_QC213_211129	0902_QC214_211129
Date Sampled		29/11/2021	29/11/2021	29/11/2021
Type of sample		Water	Water	Water
Date prepared	-	01/12/2021	01/12/2021	01/12/2021
Date analysed	-	01/12/2021	01/12/2021	01/12/2021
Perfluorobutanesulfonic acid	µg/L	<0.01	0.03	0.16
Perfluoropentanesulfonic acid	µg/L	<0.01	0.02	0.18
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01	0.14	1.7
Perfluoroheptanesulfonic acid	µg/L	<0.01	<0.01	0.13
Perfluorooctanesulfonic acid PFOS	µg/L	<0.01	<0.01	12
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02	<0.02
Perfluorobutanoic acid	µg/L	<0.02	<0.02	0.2
Perfluoropentanoic acid	µg/L	<0.02	<0.02	0.09
Perfluorohexanoic acid	µg/L	<0.01	0.01	0.32
Perfluoroheptanoic acid	µg/L	<0.01	<0.01	0.05
Perfluorooctanoic acid PFOA	µg/L	<0.01	<0.01	0.15
Perfluorononanoic acid	µg/L	<0.01	<0.01	0.01
Perfluorodecanoic acid	µg/L	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	µg/L	<0.02	<0.02	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.01	<0.01
6:2 FTS	µg/L	<0.01	<0.01	0.02
8:2 FTS	µg/L	<0.02	<0.02	<0.02
10:2 FTS	µg/L	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	98	99	97
Surrogate $^{13}C_2$ *PFOA*	%	102	108	108
Extracted ISTD $^{13}C_3$ *PFBS*	%	114	117	116
Extracted ISTD $^{18}O_2$ *PFHxS*	%	106	105	104
Extracted ISTD $^{13}C_4$ *PFOS*	%	105	108	104
Extracted ISTD $^{13}C_4$ *PFBA*	%	98	103	77

PFAS in Waters Extended				
Our Reference		284165-13	284165-14	284165-15
Your Reference	UNITS	0902_QC212_211129	0902_QC213_211129	0902_QC214_211129
Date Sampled		29/11/2021	29/11/2021	29/11/2021
Type of sample		Water	Water	Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	100	104	98
Extracted ISTD $^{13}C_2$ *PFHxA*	%	93	105	98
Extracted ISTD $^{13}C_4$ *PFHpA*	%	95	96	94
Extracted ISTD $^{13}C_4$ *PFOA*	%	106	106	106
Extracted ISTD $^{13}C_5$ *PFNA*	%	100	106	98
Extracted ISTD $^{13}C_2$ *PFDA*	%	106	109	114
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	123	118	114
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	101	107	107
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	85	94	92
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	58	67	107
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	88	98	123
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	107	118	127
Extracted ISTD $^{13}C_8$ *FOSA*	%	103	109	101
Extracted ISTD d_3 *N MeFOSA*	%	102	106	102
Extracted ISTD d_5 *N EtFOSA*	%	100	103	100
Extracted ISTD d_7 *N MeFOSE*	%	110	112	109
Extracted ISTD d_9 *N EtFOSE*	%	107	112	110
Extracted ISTD d_3 *N MeFOSAA*	%	98	101	108
Extracted ISTD d_5 *N EtFOSAA*	%	108	116	123
Total Positive PFHxS & PFOS	µg/L	<0.01	0.14	14
Total Positive PFOA & PFOS	µg/L	<0.01	<0.01	12
Total Positive PFAS	µg/L	<0.01	0.20	15

Miscellaneous Inorganics			
Our Reference		284165-12	284165-15
Your Reference	UNITS	0902_QC211_211129	0902_QC214_211129
Date Sampled		29/11/2021	29/11/2021
Type of sample		Water	Water
Date prepared	-	30/11/2021	30/11/2021
Date analysed	-	30/11/2021	30/11/2021
Ammonia as N in water	mg/L	0.052	0.086
Nitrite as N in water	mg/L	0.005	0.005
Nitrate as N in water	mg/L	0.061	0.059
Fluoride, F	mg/L	0.1	0.1

Metals in Waters - Acid extractable			
Our Reference		284165-12	284165-15
Your Reference	UNITS	0902_QC211_211129	0902_QC214_211129
Date Sampled		29/11/2021	29/11/2021
Type of sample		Water	Water
Date prepared	-	02/12/2021	02/12/2021
Date analysed	-	02/12/2021	02/12/2021
Phosphorus - Total	mg/L	0.2	0.1

HM in water - dissolved			
Our Reference		284165-12	284165-15
Your Reference	UNITS	0902_QC211_211129	0902_QC214_211129
Date Sampled		29/11/2021	29/11/2021
Type of sample		Water	Water
Date prepared	-	02/12/2021	02/12/2021
Date analysed	-	02/12/2021	02/12/2021
Aluminium-Dissolved	µg/L	270	120
Bromine-Dissolved	µg/L	61	300
Iron-Dissolved	µg/L	630	1,100
Manganese-Dissolved	µg/L	41	370

Ion Balance			
Our Reference		284165-12	284165-15
Your Reference	UNITS	0902_QC211_211129	0902_QC214_211129
Date Sampled		29/11/2021	29/11/2021
Type of sample		Water	Water
Date prepared	-	30/11/2021	30/11/2021
Date analysed	-	30/11/2021	30/11/2021
Calcium - Dissolved	mg/L	12	14
Potassium - Dissolved	mg/L	4	7.8
Sodium - Dissolved	mg/L	12	32
Magnesium - Dissolved	mg/L	3	7.5
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5	<5
Bicarbonate Alkalinity as $CaCO_3$	mg/L	55	66
Carbonate Alkalinity as $CaCO_3$	mg/L	<5	<5
Total Alkalinity as $CaCO_3$	mg/L	55	66
Sulphate, SO4	mg/L	9	13
Chloride, Cl	mg/L	15	74
Ionic Balance	%	-7.0	-12

PFAS in Soils Extended				
Our Reference		284165-10	284165-11	284165-16
Your Reference	UNITS	0902_QC209_211126	0902_QC210_211129	0902_QC215_211129
Date Sampled		26/11/2021	29/11/2021	29/11/2021
Type of sample		Soil	Soil	Soil
Date prepared	-	03/12/2021	03/12/2021	03/12/2021
Date analysed	-	03/12/2021	03/12/2021	03/12/2021
Perfluorobutanesulfonic acid	µg/kg	5.2	3.8	0.2
Perfluoropentanesulfonic acid	µg/kg	6.8	4.6	0.2
Perfluorohexanesulfonic acid - PFHxS	µg/kg	93	70	3.1
Perfluoroheptanesulfonic acid	µg/kg	28	11	0.5
Perfluorooctanesulfonic acid PFOS	µg/kg	11,000	1,100	47
Perfluorodecanesulfonic acid	µg/kg	280	15	0.6
Perfluorobutanoic acid	µg/kg	4.2	2	<0.2
Perfluoropentanoic acid	µg/kg	11	3.1	0.4
Perfluorohexanoic acid	µg/kg	29	7.3	0.4
Perfluoroheptanoic acid	µg/kg	37	2.2	0.2
Perfluorooctanoic acid PFOA	µg/kg	110	5.4	0.3
Perfluorononanoic acid	µg/kg	660	6.8	0.2
Perfluorodecanoic acid	µg/kg	5,600	25	<0.5
Perfluoroundecanoic acid	µg/kg	8,800	29	0.6
Perfluorododecanoic acid	µg/kg	11,000	51	1
Perfluorotridecanoic acid	µg/kg	2,500	30	1
Perfluorotetradecanoic acid	µg/kg	1,200	5	<5
4:2 FTS	µg/kg	<0.1	<0.1	<0.1
6:2 FTS	µg/kg	120	1.4	0.1
8:2 FTS	µg/kg	8,500	10	0.4
10:2 FTS	µg/kg	1,100	2	0.3
Perfluorooctane sulfonamide	µg/kg	370	24	<1
N-Methyl perfluorooctane sulfonamide	µg/kg	2	<1	<1
N-Ethyl perfluorooctanesulfon amide	µg/kg	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5	<5	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	2.7	<0.2	<0.2
EtPerfluorooctanesulf amid oacetic acid	µg/kg	2.4	0.2	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	109	108	107
Surrogate $^{13}C_2$ *PFOA*	%	97	88	97
Extracted ISTD $^{13}C_3$ *PFBS*	%	67	67	89
Extracted ISTD $^{18}O_2$ *PFHxS*	%	66	68	91
Extracted ISTD $^{13}C_4$ *PFOS*	%	101	96	82

PFAS in Soils Extended				
Our Reference		284165-10	284165-11	284165-16
Your Reference	UNITS	0902_QC209_211126	0902_QC210_211129	0902_QC215_211129
Date Sampled		26/11/2021	29/11/2021	29/11/2021
Type of sample		Soil	Soil	Soil
Extracted ISTD $^{13}C_4$ *PFBA*	%	71	78	90
Extracted ISTD $^{13}C_3$ *PFPeA*	%	66	70	87
Extracted ISTD $^{13}C_2$ *PFHxA*	%	61	67	84
Extracted ISTD $^{13}C_4$ *PFHpA*	%	59	69	84
Extracted ISTD $^{13}C_4$ *PFOA*	%	62	84	104
Extracted ISTD $^{13}C_5$ *PFNA*	%	65	33	76
Extracted ISTD $^{13}C_2$ *PFDA*	%	109	66	92
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	120	56	98
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	72	#	#
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	105	51	76
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	53	73	95
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	71	99	118
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	94	76	110
Extracted ISTD $^{13}C_8$ *FOSA*	%	#	52	80
Extracted ISTD d_3 *N MeFOSA*	%	31	50	69
Extracted ISTD d_5 *N EtFOSA*	%	28	50	68
Extracted ISTD d_7 *N MeFOSE*	%	36	57	79
Extracted ISTD d_9 *N EtFOSE*	%	37	55	81
Extracted ISTD d_3 *N MeFOSAA*	%	28	61	86
Extracted ISTD d_5 *N EtFOSAA*	%	#	48	81
Total Positive PFHxS & PFOS	µg/kg	11,000	1,100	50
Total Positive PFOS & PFOA	µg/kg	11,000	1,100	48
Total Positive PFAS	µg/kg	52,000	1,400	57

Moisture				
Our Reference		284165-10	284165-11	284165-16
Your Reference	UNITS	0902_QC209_211126	0902_QC210_211129	0902_QC215_211129
Date Sampled		26/11/2021	29/11/2021	29/11/2021
Type of sample		Soil	Soil	Soil
Date prepared	-	1/12/2021	1/12/2021	1/12/2021
Date analysed	-	2/12/2021	2/12/2021	2/12/2021
Moisture	%	62	63	50

Method ID	Methodology Summary
Inorg-006	Alkalinity - determined titrimetrically in accordance with APHA latest edition, 2320-B.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA latest edition, 4500-F-C.
Inorg-040	The concentrations of the major ions (mg/L) are converted to milliequivalents and summed. The ionic balance should be within +/- 10% ie total anions = total cations +/-10%.
Inorg-055	Nitrate - determined colourimetrically. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a KCl extraction.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Waters samples are filtered on receipt prior to analysis. Alternatively determined by colourimetry/turbidity using Discrete Analyser.
Metals-020	Determination of various metals by ICP-AES.
Metals-022	Determination of various metals by ICP-MS.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	284165-2
Date prepared	-			01/12/2021	1	01/12/2021	01/12/2021		01/12/2021	01/12/2021
Date analysed	-			01/12/2021	1	01/12/2021	01/12/2021		01/12/2021	01/12/2021
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	0.01	0.01	0	109	105
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	113	103
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	1	0.07	0.06	15	116	102
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	130	120
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	1	0.13	0.13	0	111	107
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	97	88
Perfluorobutanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	111	109
Perfluoropentanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	110	108
Perfluorohexanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	123	118
Perfluoroheptanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	113	111
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	112	106
Perfluorononanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	136	129
Perfluorodecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	114	113
Perfluoroundecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	100	103
Perfluorododecanoic acid	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	120	114
Perfluorotridecanoic acid	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	98	105
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	110	105
4:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	113	110
6:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	110	109
8:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	104	104
10:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	114	116
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	129	129
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	110	108
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	122	115
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	108	107
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	103	99
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	119	113
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	110	98
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	100	1	97	104	7	98	99
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	102	1	103	103	0	101	101

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	284165-2
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	109	1	111	111	0	112	117
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	105	1	108	107	1	101	112
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	103	1	108	104	4	106	109
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	106	1	102	101	1	107	103
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	107	1	105	108	3	104	102
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	101	1	102	101	1	100	99
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	98	1	98	95	3	98	99
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	110	1	111	112	1	110	109
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	107	1	108	107	1	106	109
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	113	1	113	110	3	113	114
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	119	1	123	122	1	113	119
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	109	1	116	111	4	111	110
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	94	1	93	102	9	79	96
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	96	1	84	82	2	93	71
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	117	1	110	109	1	119	95
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	129	1	124	124	0	138	116
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	106	1	107	105	2	103	103
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	99	1	104	103	1	103	108
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	98	1	101	101	0	98	106
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	115	1	112	113	1	113	114

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	284165-2
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	111	1	114	112	2	110	112
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	116	1	107	107	0	117	104
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	132	1	131	126	4	130	119

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	13	01/12/2021	01/12/2021		[NT]	[NT]
Date analysed	-			[NT]	13	01/12/2021	01/12/2021		[NT]	[NT]
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	[NT]	13	<0.01	<0.01	0	[NT]	[NT]
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	[NT]	13	<0.01	<0.01	0	[NT]	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	[NT]	13	<0.01	<0.01	0	[NT]	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	[NT]	13	<0.01	<0.01	0	[NT]	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	[NT]	13	<0.01	<0.01	0	[NT]	[NT]
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	[NT]	13	<0.02	<0.02	0	[NT]	[NT]
Perfluorobutanoic acid	µg/L	0.02	Org-029	[NT]	13	<0.02	<0.02	0	[NT]	[NT]
Perfluoropentanoic acid	µg/L	0.02	Org-029	[NT]	13	<0.02	<0.02	0	[NT]	[NT]
Perfluorohexanoic acid	µg/L	0.01	Org-029	[NT]	13	<0.01	<0.01	0	[NT]	[NT]
Perfluoroheptanoic acid	µg/L	0.01	Org-029	[NT]	13	<0.01	<0.01	0	[NT]	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	[NT]	13	<0.01	<0.01	0	[NT]	[NT]
Perfluorononanoic acid	µg/L	0.01	Org-029	[NT]	13	<0.01	<0.01	0	[NT]	[NT]
Perfluorodecanoic acid	µg/L	0.02	Org-029	[NT]	13	<0.02	<0.02	0	[NT]	[NT]
Perfluoroundecanoic acid	µg/L	0.02	Org-029	[NT]	13	<0.02	<0.02	0	[NT]	[NT]
Perfluorododecanoic acid	µg/L	0.05	Org-029	[NT]	13	<0.05	<0.05	0	[NT]	[NT]
Perfluorotridecanoic acid	µg/L	0.1	Org-029	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	[NT]	13	<0.5	<0.5	0	[NT]	[NT]
4:2 FTS	µg/L	0.01	Org-029	[NT]	13	<0.01	<0.01	0	[NT]	[NT]
6:2 FTS	µg/L	0.01	Org-029	[NT]	13	<0.01	<0.01	0	[NT]	[NT]
8:2 FTS	µg/L	0.02	Org-029	[NT]	13	<0.02	<0.02	0	[NT]	[NT]
10:2 FTS	µg/L	0.02	Org-029	[NT]	13	<0.02	<0.02	0	[NT]	[NT]
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	[NT]	13	<0.05	<0.05	0	[NT]	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	[NT]	13	<0.1	<0.1	0	[NT]	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	[NT]	13	<0.05	<0.05	0	[NT]	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	[NT]	13	<0.5	<0.5	0	[NT]	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	[NT]	13	<0.02	<0.02	0	[NT]	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	[NT]	13	<0.02	<0.02	0	[NT]	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	[NT]	13	98	101	3	[NT]	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	[NT]	13	102	105	3	[NT]	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	[NT]	13	114	116	2	[NT]	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	[NT]	13	106	107	1	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	[NT]	13	105	106	1	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	[NT]	13	98	97	1	[NT]	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	[NT]	13	100	100	0	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	[NT]	13	93	94	1	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	[NT]	13	95	94	1	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	[NT]	13	106	104	2	[NT]	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	[NT]	13	100	104	4	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	[NT]	13	106	110	4	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	[NT]	13	123	113	8	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	[NT]	13	101	108	7	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	[NT]	13	85	99	15	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	[NT]	13	58	60	3	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	[NT]	13	88	83	6	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	[NT]	13	107	98	9	[NT]	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	[NT]	13	103	104	1	[NT]	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	[NT]	13	102	102	0	[NT]	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	[NT]	13	100	102	2	[NT]	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	[NT]	13	110	110	0	[NT]	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	[NT]	13	107	110	3	[NT]	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	[NT]	13	98	96	2	[NT]	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	[NT]	13	108	107	1	[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			30/11/2021	12	30/11/2021	30/11/2021		30/11/2021	[NT]
Date analysed	-			30/11/2021	12	30/11/2021	30/11/2021		30/11/2021	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	12	0.052	0.042	21	97	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	<0.005	12	0.005	<0.005	0	107	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	<0.005	12	0.061	0.061	0	102	[NT]
Fluoride, F	mg/L	0.1	Inorg-026	<0.1	12	0.1	[NT]		105	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			02/12/2021	[NT]	[NT]	[NT]	[NT]	02/12/2021	[NT]
Date analysed	-			02/12/2021	[NT]	[NT]	[NT]	[NT]	02/12/2021	[NT]
Phosphorus - Total	mg/L	0.05	Metals-020	<0.05	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date prepared	-			02/12/2021	[NT]	[NT]	[NT]	[NT]	02/12/2021	[NT]
Date analysed	-			02/12/2021	[NT]	[NT]	[NT]	[NT]	02/12/2021	[NT]
Aluminium-Dissolved	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	98	[NT]
Bromine-Dissolved	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	101	[NT]
Iron-Dissolved	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	94	[NT]
Manganese-Dissolved	µg/L	5	Metals-022	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			30/11/2021	12	30/11/2021	30/11/2021		30/11/2021	[NT]
Date analysed	-			30/11/2021	12	30/11/2021	30/11/2021		30/11/2021	[NT]
Calcium - Dissolved	mg/L	0.5	Metals-020	<0.5	12	12	[NT]		97	[NT]
Potassium - Dissolved	mg/L	0.5	Metals-020	<0.5	12	4	[NT]		96	[NT]
Sodium - Dissolved	mg/L	0.5	Metals-020	<0.5	12	12	[NT]		115	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	<0.5	12	3	[NT]		100	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	<5	12	<5	<5	0	[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	12	55	54	2	[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	12	<5	<5	0	[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	12	55	54	2	107	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	<1	12	9	9	0	112	[NT]
Chloride, Cl	mg/L	1	Inorg-081	<1	12	15	14	7	105	[NT]
Ionic Balance	%		Inorg-040	[NT]	12	-7.0	[NT]		[NT]	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	284165-11
Date prepared	-			01/12/2021	10	03/12/2021	03/12/2021		03/12/2021	03/12/2021
Date analysed	-			01/12/2021	10	03/12/2021	03/12/2021		03/12/2021	03/12/2021
Perfluorobutanesulfonic acid	µg/kg	0.1	Org-029	<0.1	10	5.2	5.5	6	107	89
Perfluoropentanesulfonic acid	µg/kg	0.1	Org-029	<0.1	10	6.8	8.7	25	106	91
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<0.1	10	93	120	25	104	##
Perfluoroheptanesulfonic acid	µg/kg	0.1	Org-029	<0.1	10	28	27	4	116	110
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<0.1	10	11000	7500	38	107	##
Perfluorodecanesulfonic acid	µg/kg	0.2	Org-029	<0.2	10	280	220	24	90	71
Perfluorobutanoic acid	µg/kg	0.2	Org-029	<0.2	10	4.2	4.4	5	109	98
Perfluoropentanoic acid	µg/kg	0.2	Org-029	<0.2	10	11	11	0	112	110
Perfluorohexanoic acid	µg/kg	0.1	Org-029	<0.1	10	29	31	7	111	100
Perfluoroheptanoic acid	µg/kg	0.1	Org-029	<0.1	10	37	46	22	115	117
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<0.1	10	110	120	9	105	111
Perfluorononanoic acid	µg/kg	0.1	Org-029	<0.1	10	660	510	26	125	131
Perfluorodecanoic acid	µg/kg	0.5	Org-029	<0.5	10	5600	4000	33	122	121
Perfluoroundecanoic acid	µg/kg	0.5	Org-029	<0.5	10	8800	6200	35	106	102
Perfluorododecanoic acid	µg/kg	0.5	Org-029	<0.5	10	11000	7900	33	118	78
Perfluorotridecanoic acid	µg/kg	0.5	Org-029	<0.5	10	2500	1600	44	112	##
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	10	1200	820	38	98	75
4:2 FTS	µg/kg	0.1	Org-029	<0.1	10	<0.1	<0.1	0	112	134
6:2 FTS	µg/kg	0.1	Org-029	<0.1	10	120	130	8	112	107
8:2 FTS	µg/kg	0.2	Org-029	<0.2	10	8500	5800	38	127	102
10:2 FTS	µg/kg	0.2	Org-029	<0.2	10	1100	720	42	127	98
Perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	10	370	270	31	114	113
N-Methyl perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	10	2	2	0	112	120
N-Ethyl perfluorooctanesulfon amide	µg/kg	1	Org-029	<1	10	<1	<1	0	115	132
N-Me perfluorooctanesulfonamid oethanol	µg/kg	1	Org-029	<1	10	<1	<1	0	104	129
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	10	<5	<5	0	107	102
MePerfluorooctanesulf- amid oacetic acid	µg/kg	0.2	Org-029	<0.2	10	2.7	2	30	107	98
EtPerfluorooctanesulf amid oacetic acid	µg/kg	0.2	Org-029	<0.2	10	2.4	1	82	107	117
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	103	10	109	109	0	101	104
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	104	10	97	98	1	101	100

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	284165-11
Extracted ISTD $^{13}C_3$ PFBS	%		Org-029	105	10	67	56	18	103	65
Extracted ISTD $^{18}O_2$ PFHxS	%		Org-029	101	10	66	51	26	103	58
Extracted ISTD $^{13}C_4$ PFOS	%		Org-029	99	10	101	102	1	100	37
Extracted ISTD $^{13}C_4$ PFBA	%		Org-029	106	10	71	62	14	104	69
Extracted ISTD $^{13}C_3$ PFPeA	%		Org-029	102	10	66	54	20	98	63
Extracted ISTD $^{13}C_2$ PFHxA	%		Org-029	105	10	61	52	16	102	60
Extracted ISTD $^{13}C_4$ PFHpA	%		Org-029	105	10	59	47	23	103	56
Extracted ISTD $^{13}C_4$ PFOA	%		Org-029	106	10	62	51	19	109	70
Extracted ISTD $^{13}C_5$ PFNA	%		Org-029	107	10	65	69	6	104	30
Extracted ISTD $^{13}C_2$ PFDA	%		Org-029	110	10	109	108	1	103	55
Extracted ISTD $^{13}C_2$ PFUnDA	%		Org-029	127	10	120	126	5	113	47
Extracted ISTD $^{13}C_2$ PFDoDA	%		Org-029	113	10	72	86	18	106	21
Extracted ISTD $^{13}C_2$ PFTeDA	%		Org-029	134	10	105	112	6	136	46
Extracted ISTD $^{13}C_2$ 4:2FTS	%		Org-029	111	10	53	51	4	113	61
Extracted ISTD $^{13}C_2$ 6:2FTS	%		Org-029	118	10	71	57	22	109	90
Extracted ISTD $^{13}C_2$ 8:2FTS	%		Org-029	119	10	94	104	10	103	60
Extracted ISTD $^{13}C_8$ FOSA	%		Org-029	114	10	#	#		108	43
Extracted ISTD d_3 N MeFOSA	%		Org-029	105	10	31	20	43	102	43
Extracted ISTD d_5 N EtFOSA	%		Org-029	105	10	28	22	24	104	42
Extracted ISTD d_7 N MeFOSE	%		Org-029	107	10	36	#		117	43

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	284165-11
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	113	10	37	25	39	109	44
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	105	10	28	22	24	105	56
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	114	10	#	#		108	43

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Total metals: no unfiltered, preserved sample was received, therefore analysis was conducted from the unpreserved sample bottle.
Note: there is a possibility some elements may be underestimated.

Nutrients
Samples were out of the recommended holding time for this analysis.

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

PFAS_S: ## Percent recovery is not applicable due to the high concentration of the analytes in the sample. However an acceptable recovery was obtained for the LCS.

AECOM

Chain of Custody

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Sydney, NSW, 2000
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F +61 2 8934 0001
Email reports to: Geoff.Tredinnick@aecom.com; catherine.hansen@aecom.com; derp.labreports@esdat.com.au; mat.jenkins@aecom.com

Laboratory Details

Lab. Name: Envirolab
Lab. Address: 12 Ashley St, Chatswood NSW 2067
Contact Name:
Lab. Ref:

Tel: 0287 848 555
Fax: NA
Preliminary Report by:
Final Report by:
Lab Quote No: SY/139/19 v4

Sampled By: Ayrton Donegan, Andrew Spoor

Project Name: NSW_0902_PFASOMP

AECOM Project #: 60612562 - 5.1

Purchase Order No:

Specifications: Please report in ESdat format only
Please send ESdat files to *DERP.labreports@esdat.com.au* and ensure that the files use the PROJECT NAME

	Yes (tick)
1. Urgent TAT required? (please circle: 24hr 48hr **5 days**)	
2. Fast TAT Guarantee Required?	
3. Is any sediment layer present in waters to be excluded from extractions?	
4. % extraneous material removed from samples to be reported as per NEPM 5.1.1?	
5. Special storage requirements? (details: _____)	

6. Report Format: ESdat

7. Project Manager: Geoff Tredinnick

Analysis Request

Lab. ID	Sample ID	Sampling Date	Matrix: soil	Matrix: water	Matrix: sed	Preservation: filt'ed	Preservation: acid	Preservation: Ice	Preservation: other	Container (No. & type)	PFAS extended Suite (standard LOR)	Nutrients (ammonia, nitrate, nitrite, phosphorous)	Aluminium, bromine, iron, maganese (Field filtered)	Major Cations and Major anions	HOLD
1	0902_QC216_211214	14/12/2021		X				X			X				

Notes
Major Ions to include: calcium, magnesium, potassium, sodium, chloride, sulphate, bicarbonate, carbonate, flouride.

TaT: Standard Turn Around Time on all samples.

Comments:	Please send ESdat files to DERP.labreports@esdat.com.au and ensure that the files use the PROJECT NAME	Temp. received: °C	Report & invoice: Geoff.Tredinnick@aecom.com, catherine.hansen@aecom.com	Lab Report No	Esky ID
Relinquished by:	Mat Jenkins	Signed:	Date:	Relinquished by:	Signed: / Date:
Received by:	A-BM, ELS MD	Signed:	Date: 14/12/21	Received by:	Signed: / Date:

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 285371
Date Received: 14/12/21
Time Received: 1520
Received By: AB
Temp: Cool/Ambient
Cooling: Ice/Icepack 5°
Security: Intact / Broken

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 285371

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	Catherine Hansen
Address	PO Box Q410, QVB Post Office, Sydney, NSW, 1230

Sample Details

Your Reference	**60612562 - 5.1, NSW_0902_PFASOMP**
Number of Samples	1 water
Date samples received	14/12/2021
Date completed instructions received	14/12/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	21/12/2021
Date of Issue	20/12/2021

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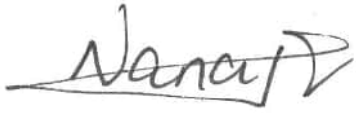
Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Alexander Mitchell Maclean, Senior Chemist

Authorised By



Nancy Zhang, Laboratory Manager

PFAS in Waters Extended		
Our Reference		285371-1
Your Reference	UNITS	0902_QC216_211214
Date Sampled		14/12/2021
Type of sample		water
Date prepared	-	17/12/2021
Date analysed	-	17/12/2021
Perfluorobutanesulfonic acid	µg/L	<0.01
Perfluoropentanesulfonic acid	µg/L	<0.01
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.02
Perfluoroheptanesulfonic acid	µg/L	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	<0.01
Perfluorodecanesulfonic acid	µg/L	<0.02
Perfluorobutanoic acid	µg/L	<0.02
Perfluoropentanoic acid	µg/L	<0.02
Perfluorohexanoic acid	µg/L	<0.01
Perfluoroheptanoic acid	µg/L	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01
Perfluorononanoic acid	µg/L	<0.01
Perfluorodecanoic acid	µg/L	<0.02
Perfluoroundecanoic acid	µg/L	<0.02
Perfluorododecanoic acid	µg/L	<0.05
Perfluorotridecanoic acid	µg/L	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5
4:2 FTS	µg/L	<0.01
6:2 FTS	µg/L	<0.01
8:2 FTS	µg/L	<0.02
10:2 FTS	µg/L	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	105
Surrogate $^{13}C_2$ *PFOA*	%	94
Extracted ISTD $^{13}C_3$ *PFBS*	%	92
Extracted ISTD $^{18}O_2$ *PFHxS*	%	93
Extracted ISTD $^{13}C_4$ *PFOS*	%	93

PFAS in Waters Extended		
Our Reference		285371-1
Your Reference	UNITS	0902_QC216_211214
Date Sampled		14/12/2021
Type of sample		water
Extracted ISTD $^{13}C_4$ *PFBA*	%	88
Extracted ISTD $^{13}C_3$ *PFPeA*	%	93
Extracted ISTD $^{13}C_2$ *PFHxA*	%	99
Extracted ISTD $^{13}C_4$ *PFHpA*	%	97
Extracted ISTD $^{13}C_4$ *PFOA*	%	102
Extracted ISTD $^{13}C_5$ *PFNA*	%	95
Extracted ISTD $^{13}C_2$ *PFDA*	%	98
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	85
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	102
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	78
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	93
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	93
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	95
Extracted ISTD $^{13}C_8$ *FOSA*	%	101
Extracted ISTD d_3 *N MeFOSA*	%	99
Extracted ISTD d_5 *N EtFOSA*	%	99
Extracted ISTD d_7 *N MeFOSE*	%	99
Extracted ISTD d_9 *N EtFOSE*	%	101
Extracted ISTD d_3 *N MeFOSAA*	%	94
Extracted ISTD d_5 *N EtFOSAA*	%	90
Total Positive PFHxS & PFOS	µg/L	0.02
Total Positive PFOA & PFOS	µg/L	<0.01
Total Positive PFAS	µg/L	0.02

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			17/12/2021	[NT]	[NT]	[NT]	[NT]	17/12/2021	[NT]
Date analysed	-			17/12/2021	[NT]	[NT]	[NT]	[NT]	17/12/2021	[NT]
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	110	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	114	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	109	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	105	[NT]
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	99	[NT]
Perfluorobutanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluoropentanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorohexanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluoroheptanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorononanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluorodecanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	98	[NT]
Perfluoroundecanoic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorododecanoic acid	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	99	[NT]
Perfluorotridecanoic acid	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	106	[NT]
4:2 FTS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	95	[NT]
6:2 FTS	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	99	[NT]
8:2 FTS	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	97	[NT]
10:2 FTS	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	92	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	104	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	102	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	102	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	94	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	[NT]	[NT]	[NT]	[NT]	106	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	93	[NT]	[NT]	[NT]	[NT]	95	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	92	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	94	[NT]	[NT]	[NT]	[NT]	91	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	93	[NT]	[NT]	[NT]	[NT]	93	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	92	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	93	[NT]	[NT]	[NT]	[NT]	92	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	94	[NT]	[NT]	[NT]	[NT]	93	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	91	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	95	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	83	[NT]	[NT]	[NT]	[NT]	80	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	97	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	94	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	93	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	93	[NT]	[NT]	[NT]	[NT]	95	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	95	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	94	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	94	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Prepared for
Department of Defence
ABN: 68706814312

AECOM

Sampling Event Factual Report, May 2022

PFAS OMP - RAAF Base Richmond

20-Dec-2022
RAAF Base Richmond
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Delivering a better world

Sampling Event Factual Report, May 2022

PFAS OMP - RAAF Base Richmond

Client: Department of Defence

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List of Abbreviations

Abbreviations	Term
ADWG	Australian Drinking Water Guidelines
AECOM	AECOM Australia Pty Ltd
AHD	Australian Height Datum
ASC NEPM	Assessment of Site Contamination National Environment Protection
CSM	Conceptual Site Model
DCMM	Defence Contamination Management Manual
Defence	Department of Defence
DO	Dissolved Oxygen
DoH	Department of Health
DQI	Data Quality Indicator
DQO	Data Quality Objective
EC	Electrical conductivity
FFTG	Former Fire Training Ground
HEPA	Heads of Environment Protection Authority
LOR	Limit of Reporting
MW	Monitoring Well
NEMP	National Environmental Management Plan
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OMP	Ongoing Monitoring Plan
ORP	Oxidation Reduction Potential
PFAS	Per- and poly-fluoroalkyl substances
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control
RAAF	Royal Australian Air Force
RPD	Relative Percentage Difference
SAQP	Sample and Analysis Quality Plan
SW	Surface Water
SWL	Standing Water Level

List of Units

Units	Term
g	Grams
km	Kilometre
L	Litres
m	Metre
mbgl	Metres below ground level
m btoc	Metres below top of casing
mEq/L	milliequivalents per Litre
mg/kg	Milligrams per kilogram
µg/L	Micrograms per Litre

1.0 Introduction

1.1 General

AECOM Australia Pty Ltd (AECOM) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at the RAAF Base Richmond (the 'Site') in the NSW and Jervis Bay Region. The location of the Site and Management Areas are shown in **Figure F1** in **Appendix A**.

The OMP (Defence, 2019a) for the Site outlines the requirement to complete biannual groundwater, surface water and sediment sampling.

Following each sampling event, a sampling event factual report is prepared. Annual interpretative reports will be prepared following the completion of each 12-month sampling period. This Sampling Event Factual Report has been prepared to report the results of the biannual sampling event completed in May 2022 specifically highlighting first time detections and/or new exceedances of human health and/or ecological screening criteria for Perfluorooctanesulfonic acid (PFOS) + Perfluorohexanesulfonic acid (PFHxS) and/or Perfluorooctanoic acid (PFOA).

This reported has been prepared in accordance with the Defence *PFAS OMP Factual Report Guidance,* Version 0.2 dated May 2021 (Defence, 2021).

1.2 Objectives

The objectives of the OMP program are to:

- implement the OMP (Defence, 2019a) prepared as part of the Detailed Environmental Investigations; and
- collect data that will enable Defence to maintain an up to date understanding of the distribution, concentration, transport and transformation of PFAS within the Management Areas.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PFAS Management Area Plan (PMAP) (Defence, 2019b).

The objective of this phase of the project is to implement the scope of works for the May 2022 sampling event in accordance with the Sampling and Analysis Quality Plan (SAQP) (AECOM, 2022).

2.0 Scope of Work

2.1 Summary of Scope

The biannual sampling event was completed in general accordance with the SAQP (AECOM, 2022). In summary, the scope of works completed included:

- obtaining permission (where required) to conduct works at the Site, off-site publicly accessible areas and privately owned properties
- gauging of groundwater levels in 80 monitoring wells prior to collection of samples (refer to **Table 1** below, and **Figure F2** in **Appendix A** for specific locations). It is noted gauging data from 10 planned monitoring locations could not be collected during this sampling event (refer to **Table 4** for more details)
- collection of groundwater samples from 80 existing monitoring wells using either HydraSleeves™ or dedicated, disposable bailers (refer to **Table 1** below, and **Figure F2** in **Appendix A** for specific locations). It is noted that samples from 10 monitoring locations could not be collected during this sampling event (refer to **Table 4** for more details)
- collection of 21 surface water samples (refer to **Table 2** below, and **Figure F3** in **Appendix A** for specific locations). It is noted that surface water samples from two locations could not be collected during this sampling event (refer to **Table 4** for further details)
- collection of 20 sediment samples (refer to **Table 3** below, and **Figure F4** in **Appendix A** for specific locations). It is noted that a sediment sample from two locations could not be collected during this sampling event (refer to **Table 4** for further details)
- collection of field duplicate samples at a rate of 1 in 10 primary samples and collecting one rinsate sample per fieldwork day
- analysis of samples for the following:
  - all samples for the PFAS suite at the standard limit of reporting (LOR).
  - 20% of groundwater and surface water samples for nutrients (ammonia, nitrate, nitrite, phosphorous) and selected metals (aluminium, bromide, iron and manganese)
- data management of the OMP field and laboratory data in Defence ESdat database
- preparation of this Sampling Event Factual Report.

2.2 Planned Monitoring Locations

The monitoring locations outlined within the SAQP (AECOM, 2022) for the planned biannual groundwater, surface water and sediment sampling event is outlined in **Table 1**, **Table 2** and **Table 3** below.

Table 1 Groundwater Sampling Locations

Area	Description	Sampling Locations	Number of wells/ bores	Total
On-Site	West of Site (including Airfield Former Fire Ground/Training Ground)	MW008, MW009, MW010, MW040, MW041, MW117*, MW118*, MW119*	8	74 Locations
	Airfield Foam Cannon Testing Area and Surrounds	MW030, MW053, MW054, MW056, MW057, MW058*, MW059, MW107D, MW107I, MW108	10	
	Airfield Flight Line (including Fire Station, Building 291)	MW007, MW024, MW025, MW026, MW027, MW028, MW042, MW043	8	

Area	Description	Sampling Locations	Number of wells/ bores	Total
	Site Infrastructure (including Hangar 54)	MW044*, MW045*, MW046, MW060, MW061, MW062, MW063, MW064, MW065, MW066, MW067, MW068, MW069, MW070, MW071	15	
	East of Site (including Tanker Parking Area and Former Fuel Farm 1)	MW047, MW048, MW050, MW051, MW052, MW072, MW073, MW074	8	
	Sewage Treatment Plant and Surrounds	MW020, MW021, MW022, MW023, MW036, MW109, MW110	7	
	Fuel Farm 2	MW032, MW033, MW034	3	
	Rickabys Drop Zone	MW001, MW002, MW004, MW005, MW012, MW013, MW014, MW015, MW016, MW017, MW095*, MW111, MW112, MW113, MW114	15	
Off-Site	West of Site	MW075, MW076, MW077, MW078, MW081	5	16 Locations
	North west of Site	MW079, MW080, MW082, MW106, MW120*, MW121*	6	
	North east of Site	MW097, MW098	2	
	East of Site	MW086*, MW091, MW092	3	

Note: *Location not sampled. Refer to **Table 4** for further details

Table 2 Surface Water Sampling Locations

Area	Description	Sampling Locations	Number of Locations	Total
On-Site	North west of Site (including STP discharge point)	SW001, SW002, SW003, SW037	4	11 Locations
	North east of Site (including tributary of Rickabys Creek)	SW005, SW007, SW014	3	
	East of Site (including Rickabys Creek)	SW008, SW009, SW011, SW013	4	
Off-Site	West of Site	SW022, SW024, SW035	3	12 Locations
	North of Site	SW015, SW016, SW032*, SW081*	4	
	East of Site	SW018, SW019, SW023, SW030	4	
	South of Site	SW020	1	

Note: *Location not sampled. Refer to **Table 4** for further details

Table 3 Sediment Sampling Locations

Area	Description	Sampling Locations	Number of Locations	Total
On-Site	North west of Site (including STP discharge point)	SD001, SD002, SD003	3	10 Locations
	North east of Site (including tributary of Rickabys Creek)	SD005, SD007, SD014	3	
	East of Site (including Rickabys Creek)	SD008, SD009, SD011, SD013	4	
Off-Site	West of Site	SD022, SD024, SD035	3	12 Locations
	North of Site	SD015, SD016, SD032*, SD081*	4	
	East of Site	SD018, SD019, SD023, SD030	4	
	South of Site	SD020	1	

Note: *Location not sampled. Refer to **Table 4** for further details

3.0 Deviations from the SAQP

The May 2022 sampling event was completed in general accordance with the SAQP (AECOM, 2022) with the exception of the deviations outlined in **Table 4** below.

Table 4 Deviations from SAQP (AECOM, 2022)

SAQP	May 2022 Sampling Event
90 groundwater locations are identified to be gauged and sampled as part of the biannual sampling event	Monitoring wells MW044 and MW045 (located on-site) appear to have been covered over with new turf and therefore were not able to be located and sampled. Given the close proximity of on-site monitoring well MW046, the existing monitoring well network is considered sufficient to provide coverage of this area and the lack of sampling data from these wells do not present a significant data gap. AECOM will attempt to locate these monitoring wells using a metal detector during the next scheduled OMP event. The monument of monitoring well MW058 (located on-site) appears to have been hit by a vehicle which has resulted in the casing being bent at ground level and therefore the well was not able to be accessed for sampling. Given the close proximity of on-site monitoring well MW107D, MW107I and MW057, Given that the existing groundwater monitoring well network in this area provides sufficient coverage, the lack of sampling data from this well does not present a significant data gap. AECOM will repair the casing for this monitoring well ahead of the next scheduled OMP event. Monitoring well MW086 was buried under a stockpile of material and therefore was not able to be accessed for sampling. Given the close proximity of on-site monitoring well MW048, the existing groundwater monitoring well network is considered sufficient to provide coverage of this area and the lack of sampling data from this well does not present a significant data gap. Monitoring well MW095 is considered likely to have been destroyed during the March 2022 floods as no evidence of the well was observed during the current sampling event. Given the presence of down-hydraulic gradient monitoring wells MW091 and MW092 (located between the Site and the Hawkesbury River) the existing groundwater monitoring well network is considered sufficient to provide coverage of this area and the lack of sampling data from this well does not present a significant data gap. Monitoring wells MW117, MW118 and MW119 (located on-site, airside) were compromised by surface water ingress in 2021. AECOM received direction from Defence (correspondence dated 24 May 2022) to not sample these wells during the OMP event as they will no longer be used for remediation performance monitoring purposes. Given that these wells are no longer part of the OMP scope, the lack of sampling data does not present a data gap. Monitoring wells MW120 and MW121 (on private property) were not accessed for sampling as the landowner denied access to the property for the sampling to occur. The lack of groundwater data at this location presents a potential data gap in assessing the off-site extent of PFAS in groundwater to the north of the Site.
23 surface water locations are identified to be sampled as part of the biannual sampling event	AECOM was unable collect a sample from proposed surface water location SW081 as the road was closed due to rectification works following the damage the road sustained during significant flood events in March 2021 and March 2022. Concentrations of PFAS in

SAQP	May 2022 Sampling Event
	surface water at this location remain a data gap as this location has not been sampled previously. AECOM will attempt to collect a sample from the location again during the next scheduled OMP sampling event in November 2022. AECOM was unable collect a sample from proposed surface water location SW032 (private property) as the landowner denied access to the property for the sampling to occur. The lack of sampling data from this location presents a potential data gap for assessing PFAS concentrations in Bakers Lagoon.
20% of groundwater and surface water samples for nutrients (ammonia, nitrate, nitrite, phosphorous) and selected metals (aluminium, bromide, iron and manganese)	As MW095 and SW032 were not able to be sampled, only 19% of groundwater and surface water samples were analysed for the expanded suite, rather than the target 20%. Given that the actual rate was only marginally lower than the target rate of 20%, AECOM considers that the data collected are sufficiently representative for the purposes of the OMP.
22 sediment locations are identified to be sampled as part of the biannual sampling event	AECOM was unable collect a sample from proposed surface water location SD081 as the road was closed due to rectification works following the damage sustained during significant flood events in March 2021 and March 2022. Concentrations of PFAS in surface water at this location remain a data gap as this location has not been sampled previously. AECOM will attempt to collect a sample from the location again during the next scheduled OMP sampling event in November 2022. AECOM was unable collect a sample from proposed sediment location SD032 (residential) as the landowner denied access to the property for the sampling to occur. The lack of sampling data from this location presents a potential data gap for assessing PFAS concentrations in Bakers Lagoon.
Collection of gauging and geochemical parameter data at each groundwater location	Due to the opportunistic nature of the groundwater sampling undertaken on 16 June 2022, no gauging or geochemical parameter data was collected during the sampling of monitoring well MW080. The lack of gauging and geochemical data for location MW080 is not considered to impact upon the objectives of the OMP.

4.0 Methodology

4.1 Sampling Methodology

The methodology adopted for the May 2022 biannual sampling event was in general accordance with the SAQP (AECOM, 2022) and summarised in **Table 5** below:

Table 5 Sampling Methodology

Item	Details
Groundwater gauging	The depth to groundwater (in metres below top of casing [mbtoc]) was measured in each monitoring well immediately prior to collection of groundwater samples using an interface probe, with the exception of the ten monitoring wells outlined in **Table 4**.
Field parameters	Temperature, electrical conductivity (EC), dissolved oxygen (DO), oxidation-reduction potential (ORP), pH and observations of water quality were recorded for all groundwater and surface water samples with the exception of those locations unable to be accessed or sampled as discussed in **Table 4**. Field parameters were collected using a calibrated water quality meter (WQM), with equipment supplier and field calibration records provided in **Appendix C**.
Sampling methodology	**Groundwater:** The groundwater samples were collected from the majority of monitoring wells using no-purge methodology HydraSleeves™, which were installed within the screened interval of the wells greater than 24hrs prior to the sampling round. Installation depths were based on a review of the well construction logs. Once sampling was completed, new HydraSleeves™ were deployed in the majority of monitoring wells at the screened interval depth in preparation for the next sampling round. Groundwater samples at MW009, MW010, MW012, MW041, MW053, MW057, MW059, MW007, MW047, MW050, MW051, MW052, MW072, MW073, MW020, MW032, MW033, MW005 and MW078 were collected using dedicated disposable bailers as HydraSleeves™ were either not present (removed prior to the OMP event by non-AECOM personnel) or did not deploy appropriately. **Surface Water:** The surface water samples were collected by lowering a laboratory supplied container below the water surface to minimise collection of sediment or floating materials in the samples. At each location, a new, laboratory supplied container was lowered into the water with the cap immediately applied once the container was full. **Sediment:** The sediment samples were collected using a trowel from the base of the drain. At each location, a new laboratory supplied container was used to collect the sample. The trowel was decontaminated between sampling locations using a PFAS-free detergent (Liquinox®) followed by a double rinse with laboratory supplied de-ionised, PFAS free water.
QA/QC Samples	Field QA/QC samples collected included intra-laboratory duplicate and inter-laboratory duplicate samples (i.e., splits) and rinsate samples. Refer to **Appendix D** for assessment of QA/QC sample data.
Sample analysis	Samples were submitted to the primary and secondary laboratories for analysis detailed in **Section 2.0**. ALS Environmental (ALS) Sydney, NSW was used as the primary laboratory. The Envirolab of Sydney, NSW was used as the secondary laboratory. ALS and Envirolab methods for analyses were certified by the National Association of Testing Authorities (NATA). Laboratory certificates are presented in **Appendix E**.

4.2 Adopted Screening Criteria

Adopted screening criteria reference national guidance in the form of the PFAS National Environmental Management Plan, Defence estate and environmental strategies, and Defence PFAS-specific strategies and guidance. Guidance documents used to assess the dataset includes the following:

- PFAS National Environmental Management Plan 2.0 (NEMP), (HEPA 2020) (https://www.environment.gov.au/protection/publications/pfas-nemp-2)
- Department of Health (DoH), 2017. Health Based Guidance Values for PFAS for use in site investigations in Australia. April 2017 (FSANZ 2017).
- National Health and Medical Research Council (NHMRC), 2019. Guidance on PFAS in Recreational Water. August 2019 (NHMRC 2019).
- National Environment Protection (Assessment of Site Contamination) Measure 1999, Schedule B1, as amended in 2013 (ASC NEPM).

The adopted screening criteria are presented in **Table 6** below.

Table 6 Summary of Adopted Screening Criteria

Pathway	Compound	Criteria	Comment/Reference
Human Health Receptors			
Drinking water - groundwater	PFOS + PFHxS	0.07 µg/L	The values presented in the PFAS NEMP, 2020 are from DoH 2017, which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH utilised the TDI for PFOS and PFOA from FSANZ, 2017 and the methodology described in Chapter 6.3.3 of the National Health and Medical Research Council's (NHMRC) Australian Drinking Water Guidelines (ADWG), 2022 to determine drinking water values. For PFHxS, DoH 2017 noted that '*FSANZ concluded that there was not enough toxicological and epidemiological information to justify establishing a tolerable daily intake. However, as a precaution, and for the purposes of site investigations, the PFOS tolerable daily intake should apply to PFHxS. In practice, this means that the level of PFHxS exposure should be added to the level of PFOS exposure; and this combined level be compared to the tolerable daily intake for PFOS*'. *All groundwater samples were screened against these criteria*
	PFOA	0.56 µg/L	
Recreational use – surface water	PFOS + PFHxS	2 µg/L	In August 2019, NHMRC released guidance on the assessment of PFAS in surface water. Rather than adopting an ingestion rate of 0.2 L of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year. *All surface water samples were screened against these criteria*
	PFOA	10 µg/L	
Ecological Receptors			
Freshwater (99% species protection values)	PFOS	0.00023 µg/L	The values are from the PFAS NEMP, 2020 which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality – draft default guideline values. AECOM understands that these guidelines are currently being reviewed and will consider the appropriateness of considering any future revision. The 99% level of protection has been applied for slightly to moderately disturbed ecosystems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. For the purposes of preliminary screening of analytical water results, the laboratory LOR will be adopted rather than sole use of the criteria value. *All groundwater and surface water samples were screened against these criteria*
	PFOA	19 µg/L	

4.3 Data Quality Objectives and Data Validation

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2022).

The data validation assessment is provided in **Appendix D**.

Data validation employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

All data collected during this event have been reviewed and uploaded to the Defence ESdat database in accordance with Defence Contamination Management Manual (DCMM) requirements.

5.0 Field Observations and Results

5.1 General Field Observations

The field observations noted during the sampling event are summarised in **Table 7** below.

Table 7 General Field Observations

Items	Observations
Weather Conditions	During the May 2022 sampling event, the weather in general was observed to be mostly sunny to overcast with cool temperatures. A maximum daily temperature of 22.3°C was recorded on Thursday 26 May 2022. 1.2 mm of rainfall was recorded between 24 and 27 May 2022 and 2.6 mm was recorded between 30 and 31 May 2022 at RAAF Base Richmond (Richmond RAAF NSW, 067105) (Bureau of Meteorology, 2022). 0 mm of rainfall was recorded on 16 June 2022. It is noted that a significant flood event occurred across the wider Hawkesbury Catchment in March 2022, preceding the May 2022 fieldworks, during which a number of monitoring wells located in the low-lying areas of the Richmond Lowlands and Rickabys Creek were likely to have been submerged by flood waters. Additionally, considerable flood debris was observed within Rickabys Drop Zone during the OMP sampling event in May 2022 confirming that a significant flood event occurred prior to the OMP event.
Estate Management Works or Training Activities	During the sampling event, the following notable estate works were observed in the vicinity of the sampling locations: • plant redevelopment being completed at the Sewage Treatment Plant, involving an infrastructure upgrade to the settlement ponds. The works were being undertaken by Baseline Projects. No training activities were observed in the vicinity of the sampling locations during the event.

5.2 Groundwater Observations and Results

5.2.1 Groundwater Observations and Field Measurements

Groundwater observations and field measurements recorded during the sampling event are presented in **Table 8** below.

Table 8 Groundwater Observations and Field Measurements

Compound	Criteria
Fieldwork Dates	The majority of groundwater sampling was completed between 24 and 31 May 2022. On 16 June 2022, AECOM remobilised to the Site to complete activities outside of the scope of the works for the OMP. During this mobilisation, the field team were able to opportunistically locate and sample monitoring well MW080, which was not located during the initial mobilisation in May 2022
Access and Sample Collection	All monitoring wells and bores were accessible and able to be sampled with the exception of the ten locations detailed in **Table 4**.
Monitoring Well Network Condition	All monitoring wells that were sampled appeared to be in good condition with the exception of the following: • monitoring well MW012 was observed to have been damaged, likely during the March 2022 flood event, with the well casing pinched at ground level preventing the deployment of HydraSleeves™. This sample was collected using a dedicated disposable bailer • monitoring wells MW044 and MW045 appeared to have been covered over with new turf and could not be located or sampled • monitoring well MW051 was observed to be missing a well cap and monument cover lid. This sample was collected using a dedicated disposable bailer • monitoring well MW052 was observed to be missing a well cap. This sample was collected using a dedicated disposable bailer • monitoring well MW058 appeared to have been struck by a vehicle and the PVC casing was observed to have pinched at ground level, preventing access and sampling • monitoring well MW086 was buried beneath a stockpile of material and could not be accessed for sampling • monitoring well MW095 could not be located and is likely to have been destroyed during the March 2022 significant flood event • the stabilised water level within MW098 was observed to be at the ground surface and the J cap was not secured properly. These observations suggest that the integrity of the monitoring well may be compromised with potential surface water ingress.
Contamination Observations	No visible indications of contamination were observed during the sampling.

Compound	Criteria
Depth to Groundwater and flow direction	Excluding monitoring wells MW012, MW051 and MW098 (which are likely to have been subject to surface water ingress) the depth to groundwater ranged from 0.02 (MW013) and 16.501 (MW054) m btoc. The measured groundwater elevations ranged between 4.560 (MW092) and 16.268 (MW071) metres Australian Height Datum (m AHD). Groundwater gauging data is presented in **Table T1** in **Appendix B**. Groundwater elevations (in m AHD) were noted to be generally higher (by up to 1.5 m above historical elevations) in the majority of monitoring wells gauged. This is attributed to the higher than average rainfall events over the previous 12 months, resulting in an increase in groundwater levels and significant flooding in the Hawkesbury valley (in March 2022). Inferred groundwater contours and groundwater flow directions at the site and Management Areas in May 2022 are shown on **Figure F5** in **Appendix A**. The inferred local groundwater flow direction for the regional shallow (unconfined) aquifer is to the north, east and northeast towards the Hawkesbury River, which is generally consistent with the DSI (AECOM, 2018) and flow directions observed during previous PFAS OMP monitoring events.
Geochemical Parameters	Groundwater geochemical parameters were measured prior to collecting groundwater samples. The stabilised readings are presented in **Table T1** in **Appendix B**, and are summarised below: • dissolved oxygen ranged from 0.45 mg/L (MW064) to 6.51 mg/L (MW005) indicating poorly to well oxygenated conditions • electrical conductivity ranged from 81.6 µS/cm (MW043) to 8,922 µS/cm (MW111) indicating fresh to brackish conditions • pH ranged from 5.92 (MW056) to 7.76 (MW052) indicating slightly acidic to near neutral conditions • corrected Redox ranged from 135 mV (MW051) to 420.5 mV (MW059) indicating reducing conditions.

5.2.2 PFAS Groundwater Analytical Results

The PFAS groundwater analytical results from this sampling event are presented in **Table T2** in **Appendix B**. In summary:

- PFAS compounds were reported at concentrations above the laboratory LOR in 73 of the 80 primary groundwater samples analysed
- Concentrations of PFOS+PFHxS and/or PFOA exceeded the adopted human health criteria in 63 of the primary groundwater samples analysed
- Concentrations of PFOS and/or PFOA exceeded the adopted ecological screening criteria in 64 of the primary groundwater samples analysed.

Deviations from the historical dataset are provided in **Table 9** below and graphically on **Figure F6** in **Appendix A**.

Table 9 Deviations from Historical Groundwater Dataset

Deviation Type	Location ID	PFOS+PFHxS concentration (µg/L)		PFOS concentration (µg/L)		PFOA concentration (µg/L)	
		May 2022	Historical maximum	May 2022	Historical maximum	May 2022	Historical maximum
First time detections of PFOS+PFHxS and/or PFOA in groundwater	MW007	There were no first-time detections in the dataset.		0.01	<0.01	There were no first-time detections in the dataset.	
	MW016	0.01	<0.01	0.01	<0.01	There were no first-time detections in the dataset.	
First time exceedance of the NEMP (HEPA, 2020) drinking water guidelines	MW081	**0.1**	0.07	There were no new exceedances of Human Health screening criteria in the dataset		There were no new exceedances of Human Health screening criteria in the dataset	
	MW091	**0.09**	0.07	There were no new exceedances of Human Health screening criteria in the dataset		There were no new exceedances of Human Health screening criteria in the dataset	
First time exceedance of the NEMP (HEPA, 2020) Freshwater 99% guidelines in groundwater	MW107I	There were no new exceedances of ecological screening criteria in the dataset		There were no new exceedances of ecological screening criteria in the dataset		32.4	1.24

Legend	
Bold	Bold text indicates existing detection or exceedance of NEMP Human Health Screening Criteria
Blue Shading	Blue shading indicates sampling location with first time detection of PFOS+PFHxS and/or PFOA
Yellow Shading	Yellow shading indicates sampling location with first time exceedance of NEMP Human Health Screening criteria and/or Ecological Screening criteria

5.2.3 Non-PFAS Groundwater Analytical Results

The non-PFAS groundwater analytical results from this sampling event are presented in **Table T2** in **Appendix B**, and are summarised below:

- Anions (total) ranged from 1.72 milliequivalents per litre (mEg/L) (MW091) to 39.7 meg/L (MW022)
- Cations (total) ranged from 2.07 mEq/L (MW091) to 38.6 mEq/L (MW022)
- Ammonia (as N) ranged from <LOR (MW091) to 130 µg/L) (MW022)
- Nitrate + Nitrite (as N) ranged from 0.02 mg/L (MW022) to 6.77 mg/L (MW091)
- Aluminium (filtered) was not detected above the laboratory LOR in the samples analysed
- Calcium (filtered) ranged from 14 mg/L (MW091) to 128 mg/L (MW022)
- Iron (filtered) ranged from below the LOR (MW091) to 1.96 mg/L (MW022)
- Magnesium (filtered) ranged from 6 mg/L (MW091) to 105 mg/L (MW022)
- Manganese (filtered) ranged from 0.009 mg/L (MW091) to 1.93 mg/L (MW081)

- Potassium (filtered) ranged from below the LOR (MW081) and 7 mg/L (MW091).

5.3 Surface Water Observations and Results

5.3.1 Surface Water Observations and Field Measurements

Surface water observations and field measurements recorded during the sampling event are presented in **Table 10** below.

Table 10 Surface Water Observations and Field Measurements

Compound	Criteria
Fieldwork Dates	The surface water sampling was completed between 24 and 31 May 2022.
Access and Sample Collection	All surface water sampling locations were accessible and able to be sampled with the exception of SW032 and SW081.
Contamination Observations	No obvious visible signs of contamination were observed.
Geochemical Parameters	Surface water geochemical parameters were measured prior to collecting surface water samples. The stabilised readings are presented in **Table T3** in **Appendix B**, and are summarised below: • dissolved oxygen ranged from 0.6 mg/L (SW014) to 10.38 mg/L (SW013) indicating relatively poorly oxygenated to well oxygenated conditions • electrical conductivity ranged from 118.2 µS/cm (SW024) to 1,559 µS/cm (SW015) indicating fresh to brackish conditions • pH ranged from 6.78 (SW014) to 8.07 (SW011) indicating slightly acidic to slightly alkaline conditions • corrected redox ranged from 216.5 mV (SW014) to 371.8 mV (SW023) indicating reducing conditions.

5.3.2 PFAS Surface Water Analytical Results

The PFAS surface water analytical results from this sampling event are presented in **Table T4** in **Appendix B**.

In summary, PFAS compounds were reported at concentrations above the laboratory LOR in 19 of the 21 surface water samples analysed. Concentrations of PFOS+PFHxS and/or PFOA exceeded the adopted human health screening criteria in 6 of the 21 primary surface water samples analysed. Concentrations of PFOS and/or PFOA exceeded the adopted ecological screening criteria in 19 of the 21 primary surface water samples analysed.

Deviations from the historical dataset are provided in **Table 11** below and graphically on **Figure F7** in **Appendix A**.

Table 11 Deviations from Historical Surface Water Dataset

Deviation Type	Location ID	PFOS+PFHxS concentration (µg/L)		PFOS concentration (µg/L)		PFOA concentration (µg/L)	
		May 2022	Historical maximum	Nov 2021	Historical maximum	May 2022	Historical maximum
First time detections of PFOS+PFHxS and/or PFOA	SW005	There were no first-time detections in the dataset.		There were no first-time detections in the dataset.		0.01	<0.01

Deviation Type	Location ID	PFOS+PFHxS concentration (µg/L)		PFOS concentration (µg/L)		PFOA concentration (µg/L)	
		May 2022	Historical maximum	Nov 2021	Historical maximum	May 2022	Historical maximum
in surface water							
First time exceedance of the NEMP (HEPA, 2020) recreational use guidelines	There were no new exceedances of the NEMP Human Health Screening Criteria in the dataset.						
First time exceedance of the NEMP (HEPA, 2020) Freshwater 99% guidelines in surface water	There were no new exceedances of the NEMP Ecological Screening Criteria in the dataset.						
Legend							
Bold	Bold text indicates existing detection or exceedance of NEMP Human Health Screening Criteria						
Blue Shading	Blue shading indicates sampling location with first time detection of PFOS+PFHxS and/or PFOA						
Yellow Shading	Yellow shading indicates sampling location with first time exceedance of NEMP Human Health Screening criteria and/or Ecological Screening criteria						

5.3.3 Non-PFAS Surface Water Analytical Results

The non-PFAS surface water analytical results from this sampling event are presented in **Table T4** in **Appendix B**, and are summarised below:

- Anions (total) ranged from 2.53 milliequivalents per litre (mEg/L) (SW003) to 21.8 meg/L (SW015)
- Cations (total) ranged from 2.5 mEq/L (SW003) to 20.4 mEq/L (SW015)
- Ammonia (as N) ranged from 100 µg/L (SW035) to 1280 µg/L (SW016)
- Nitrate + Nitrite (as N) ranged from 0.03 mg/L (SW035) to 1.48 mg/L (SW023)
- Aluminium (filtered) ranged from below the LOR (multiple) to 0.18 mg/L (SW020)
- Calcium (filtered) ranged from 16 mg/L (MW003) to 64 mg/L (SW015)
- Iron (filtered) ranged from below the LOR (SW015) to 1.47 mg/L (SW035)
- Magnesium (filtered) ranged from 6 mg/L (SW003) to 58 mg/L (SW015)
- Manganese (filtered) ranged from 0.167 mg/L (SW020) to 1.41 mg/L (SW016)
- Potassium (filtered) ranged from 3 mg/L (SW003) to 16 mg/L (SW016).

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5.4 Sediment Observations and Results

5.4.1 Sediment Observations

Sediment observations recorded during the sampling event are presented in **Table 12** below.

Table 12 Sediment Observations

Compound	Criteria
Fieldwork Dates	The sediment sampling was completed between 24 and 31 May 2022.
Access and Sample Collection	All sediment sample locations were accessible and able to be sampled with the exception of SD032 and SD081.
Sediment observations	Sediments sampled during this monitoring event were variable comprising sand, silt, gravel and clay materials with minor inclusions of organic material (roots, grass and leaves) noted. No anthropogenic inclusions were noted. No staining was observed and no odours were noted. Refer to **Table T5** in **Appendix B** for a summary of sediment classifications and observations.

5.4.2 PFAS Sediment Analytical Results

The PFAS sediment analytical results from this sampling event are presented in **Table T6** in **Appendix B**. In summary, PFAS compounds were detected at concentrations above the laboratory LORs in 19 of the 20 primary sediment samples analysed.

Deviations from the historical dataset are provided in **Table 11** below and graphically on **Figure F8** in **Appendix A**.

Table 13 Deviations from Historical Sediment Dataset

Deviation Type	Location ID	PFOS+PFHxS concentration (mg/kg)		PFOS concentration (mg/kg)		PFOA concentration (mg/kg)	
		May 2022	Historical max	Nov 2021	Historical max	May 2022	Historical max
First time detections of PFOS+PFHxS and/or PFOA in surface water	SD024	0.0009	<0.0002	0.0009	<0.0002	There were no first-time detections in the dataset.	
Legend							
Blue Shading	Blue shading indicates sampling location with first time detection of PFOS+PFHxS and/or PFOA						

5.5 Historical Sampling Data

Historical groundwater, surface water and sediment sampling data are presented in **Tables T7**, **T8** and **T9** (respectively) in **Appendix B**.

6.0 Summary and Next Sampling Events

6.1 Summary of Monitoring Event

The biannual monitoring event was completed at the Site and publicly accessible land within the Management Areas between 24 and 31 May 2022 and 16 June 2022. The program included:

- groundwater gauging at 80 of 90 monitoring wells and bores. It is noted that 10 planned locations could not be gauged
- groundwater sampling at 80 of 90 monitoring wells and bores. It is noted that 10 planned locations could not be sampled
- surface water sampling at 21 of 23 planned locations. It is noted that two planned locations could not be sampled
- sediment sampling at 20 of 22 planned locations. It is noted that two planned sediment locations could not be sampled

Table 14 below summarises the findings of the May 2022 sampling event and the recommended actions.

Table 14 Summary of Sampling Event

Item	Comment	Recommended Actions
Access to sampling locations	The following were accessed and able to be sampled: • 80 out of 90 monitoring wells and bores • 21 out of 23 surface water locations • 20 out of 22 sediment locations	AECOM will attempt to access locations MW044, MW045, MW086, SW081 and SD081 during the next scheduled sampling event in November 2022. It is recommended that monitoring locations SW032, SD032, MW120 and MW121 be removed from the OMP scope of works due to access limitations. At the request of Defence, AECOM will remove the requirement to sample MW117, MW118 and MW119 from the OMP scope of works.
Monitoring well network condition	• monitoring well MW095 could not be located and is likely to have been destroyed • the well casing for monitoring wells MW012 and MW058 were observed to be damaged • monitoring wells MW051 and MW052 were observed to be missing well caps	AECOM recommends that MW095 be removed from the OMP scope of works as the existing monitoring well network provides sufficient coverage in this area. AECOM to repair well casings for MW012 and MW058 prior to next OMP sampling event AECOM to replace the well caps on MW051 and MW052 prior to next OMP sampling event
Analytical Results	PFAS were detected at concentrations above the laboratory LOR in 73 of the 80 groundwater samples, 19 of 21 surface water	No actions recommended.

Item	Comment	Recommended Actions
	samples and 19 of 20 sediment samples analysed.	
First time detection of PFOS+PFHxS and/or PFOA	PFOS was detected at concentrations above the laboratory LOR for the first time in monitoring wells MW007 and MW016 PFOA was detected at concentrations above the laboratory LOR for the first time in surface water sample SW005 PFOS was detected at concentrations above the laboratory LOR for the first time in sediment sample SD024	Monitoring locations will be sampled again during the November 2022 sampling event.
New exceedance of NEMP Human Health guideline values	Concentrations of PFOS+PFHxS exceeded the NEMP drinking water criteria for the first time in monitoring wells MW081 and MW091. No new exceendeces of the adopted human health screening criteria were reported in the surface water samples analysed.	Monitoring locations will be sampled again during the November 2022 sampling event.
New exceedance of NEMP ecological screening criteria	Concentrations of PFOA exceeded the NEMP ecological screening criteria for the first time in monitoring well MW107I. No new exceendeces of the adopted ecological screening criteria were reported in the surface water samples analysed.	Monitoring locations will be sampled again during the November 2022 sampling event.

6.2 Upcoming Sampling Events

The next biannual sampling event is scheduled for November 2022.

6.3 Upcoming Annual Interpretive Report

The next annual interpretive report is scheduled to be delivered in Q4 2022.

7.0 References

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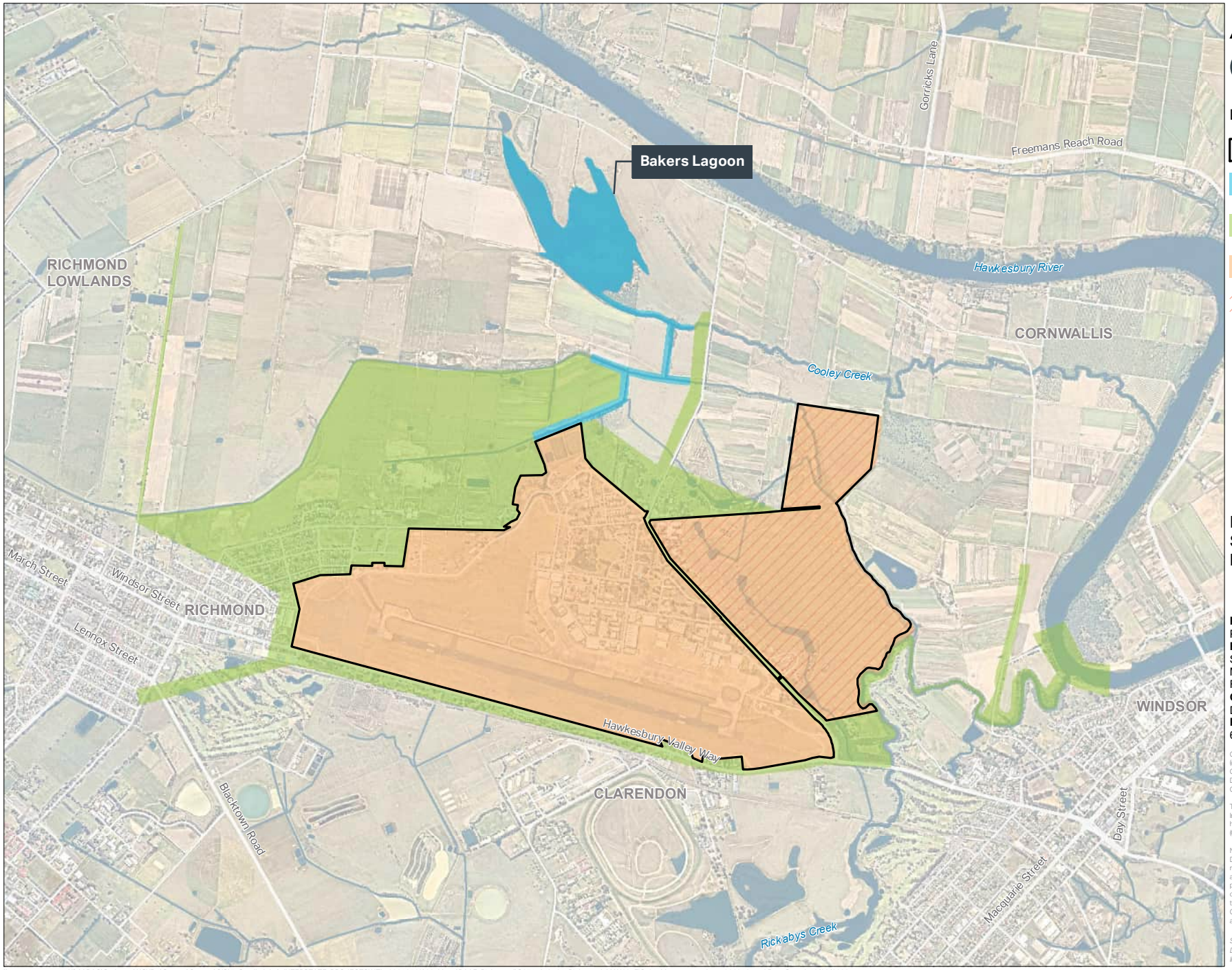
Standards Australia (AS 4482.1-2005) *Guide to the sampling and investigation of potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds.*

Standards Australia 1998. AS/NZ 5667:1998 *Water quality – sampling.*

Appendix A

Figures

Appendix A Figures



AECOM

N

0 300 600 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

FIGURE F1:
SITE LOCATION AND MANAGEMENT AREAS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2022
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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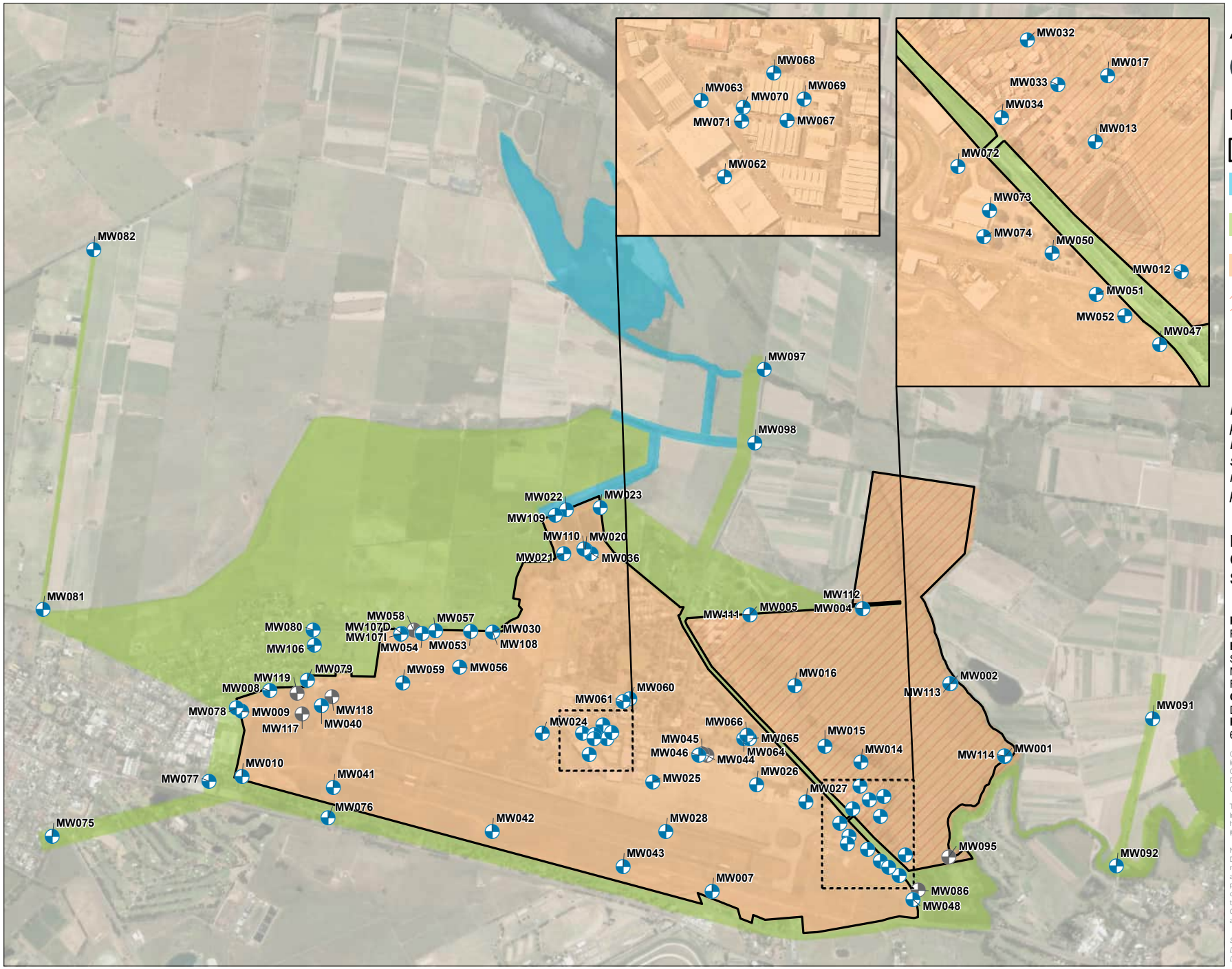

AECOM

N

0 200 400 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Location (sampled)
- Groundwater Location (not sampled)

Not all available data are presented herein.
For privacy reasons, selected sample points have been removed under advice from private property owners

FIGURE F2: GROUNDWATER SAMPLING LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2022
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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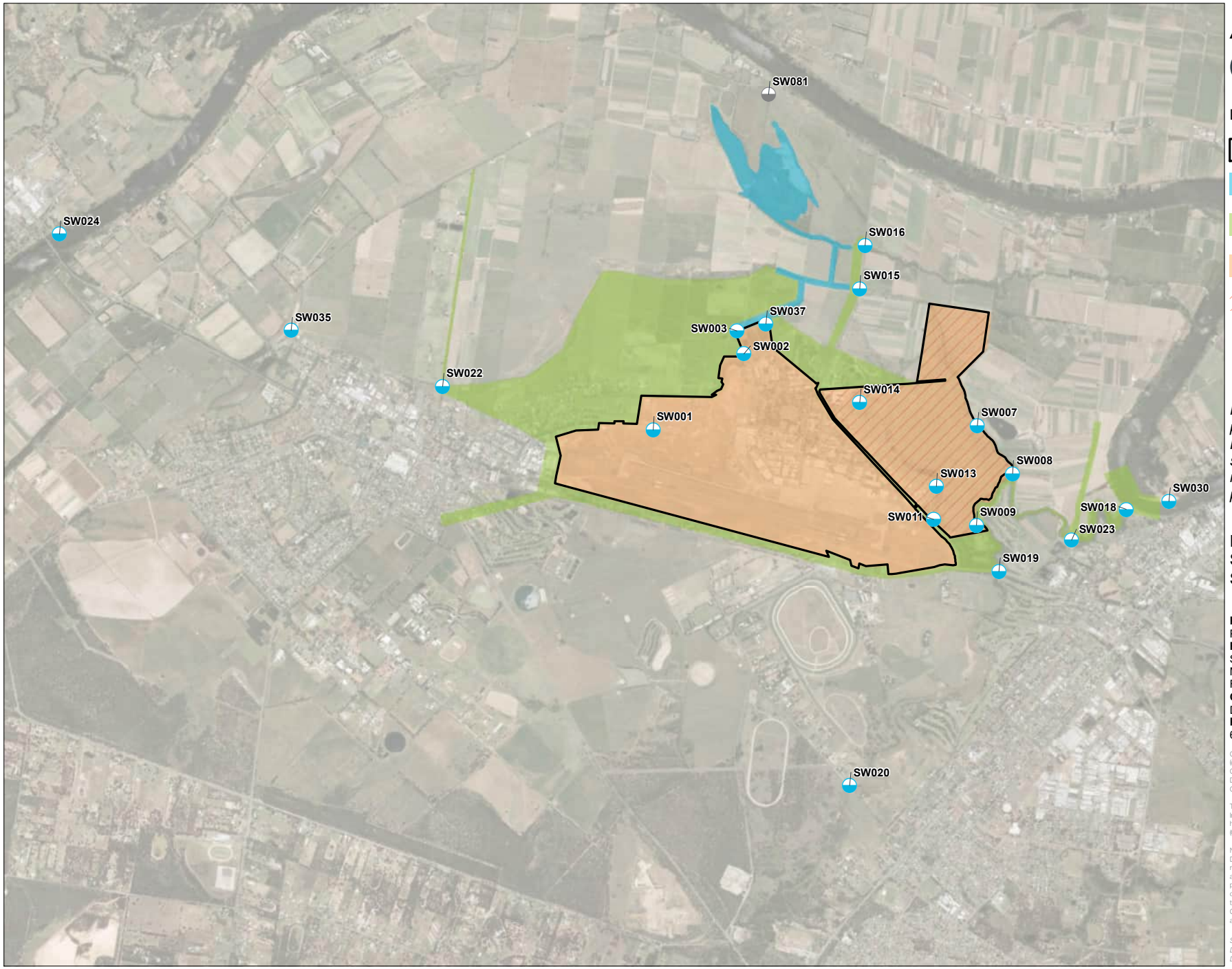

AECOM

N

0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Surface Water Location (sampled)
- Surface Water Location (not sampled)

Not all available data are presented herein.
For privacy reasons, selected sample points have been removed under advice from private property owners

FIGURE F3: SURFACE WATER SAMPLING LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2022
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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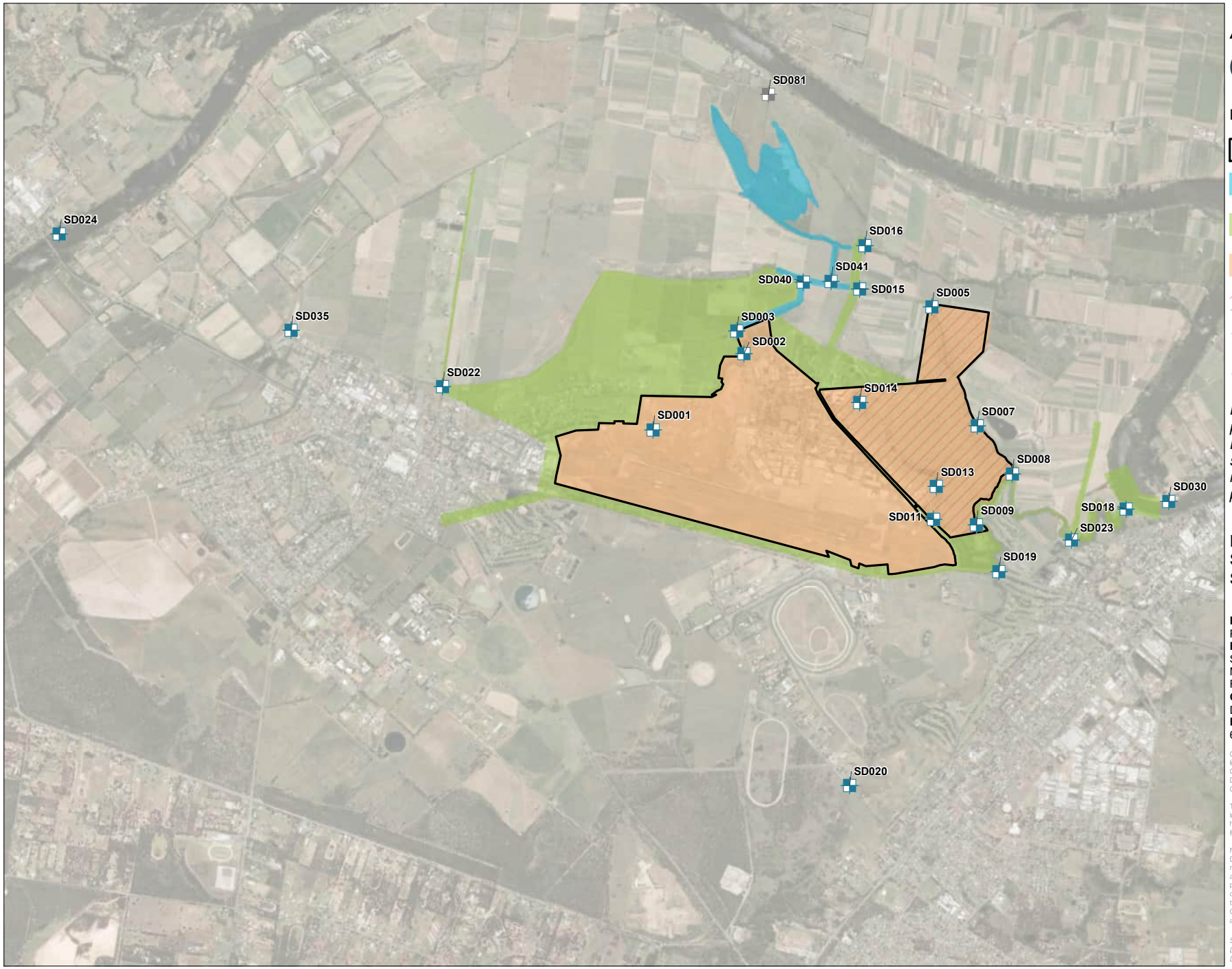

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N

0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Sediment Location (sampled)
- Sediment Location (not sampled)

Not all available data are presented herein.
For privacy reasons, selected sample points have been removed under advice from private property owners

FIGURE F4: SEDIMENT SAMPLING LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2022
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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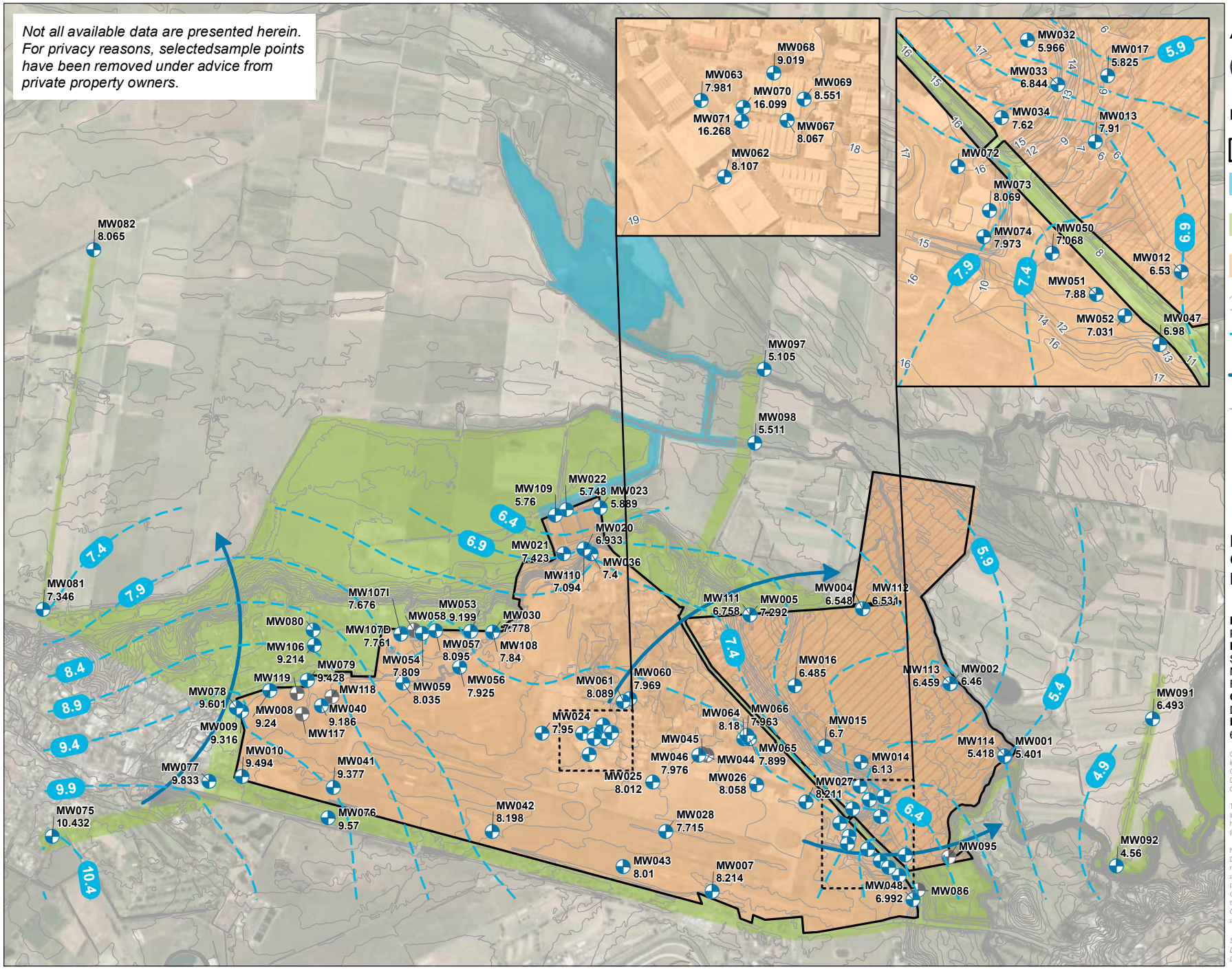

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FIGURE F5: GROUNDWATER ELEVATION PLAN

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2022
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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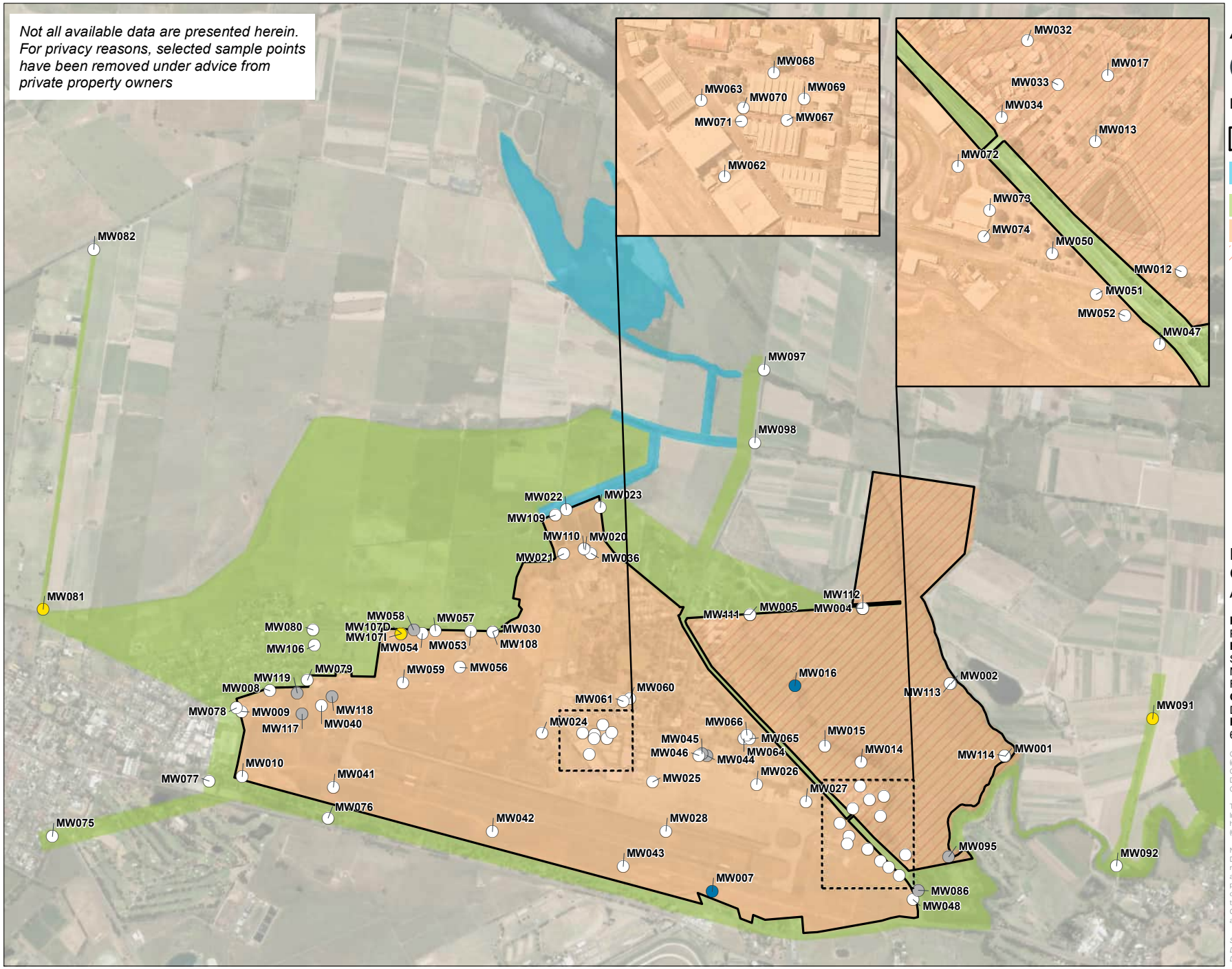

FIGURE F6: GROUNDWATER ANALYTICAL RESULTS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2022
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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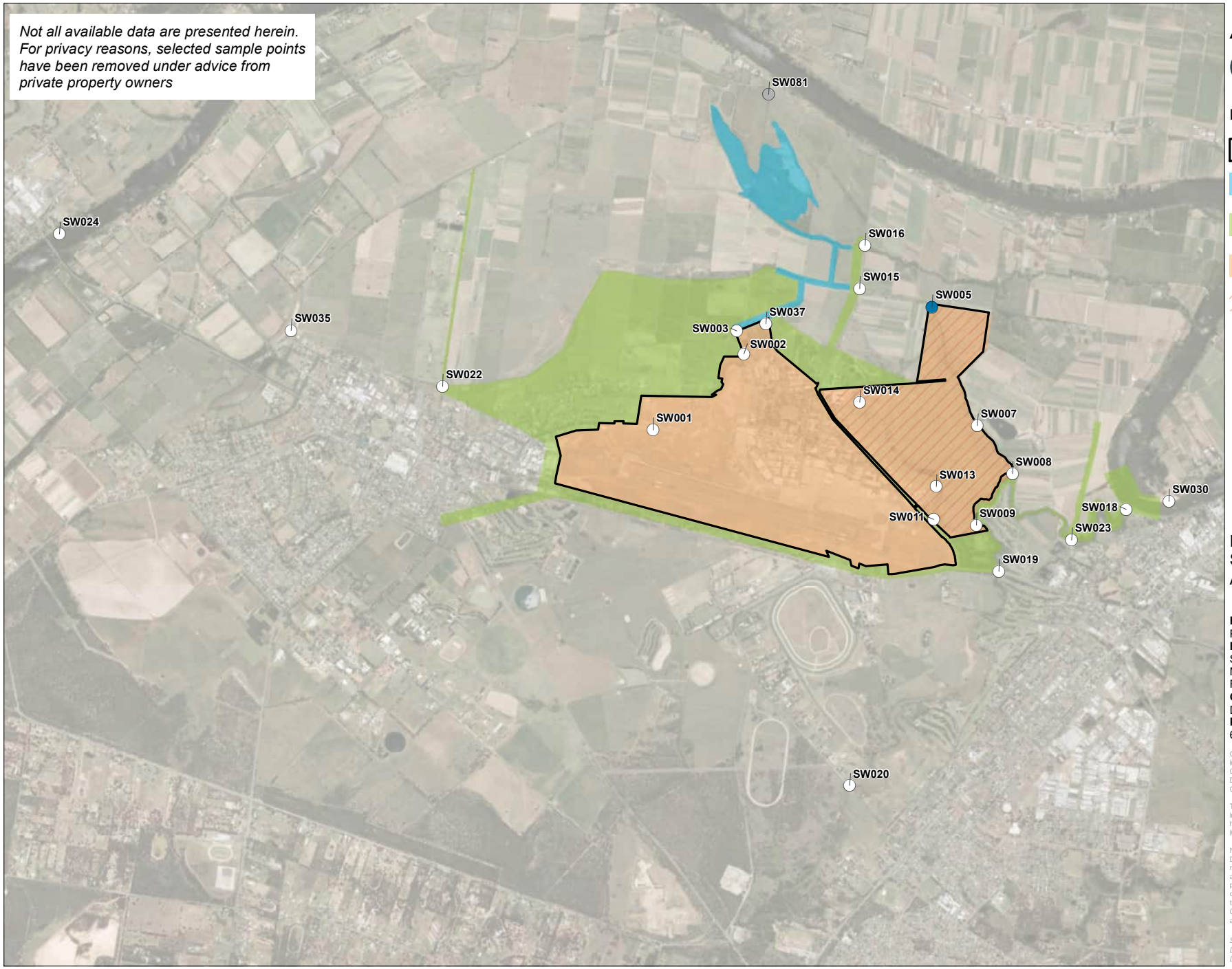

AECOM

N

0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- First time detection of PFOS+PFHxS and/or PFOA
- Sampled, no first time detection or exceedance
- Location not accessed and/or sampled

FIGURE F7: SURFACE WATER ANALYTICAL RESULTS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2022
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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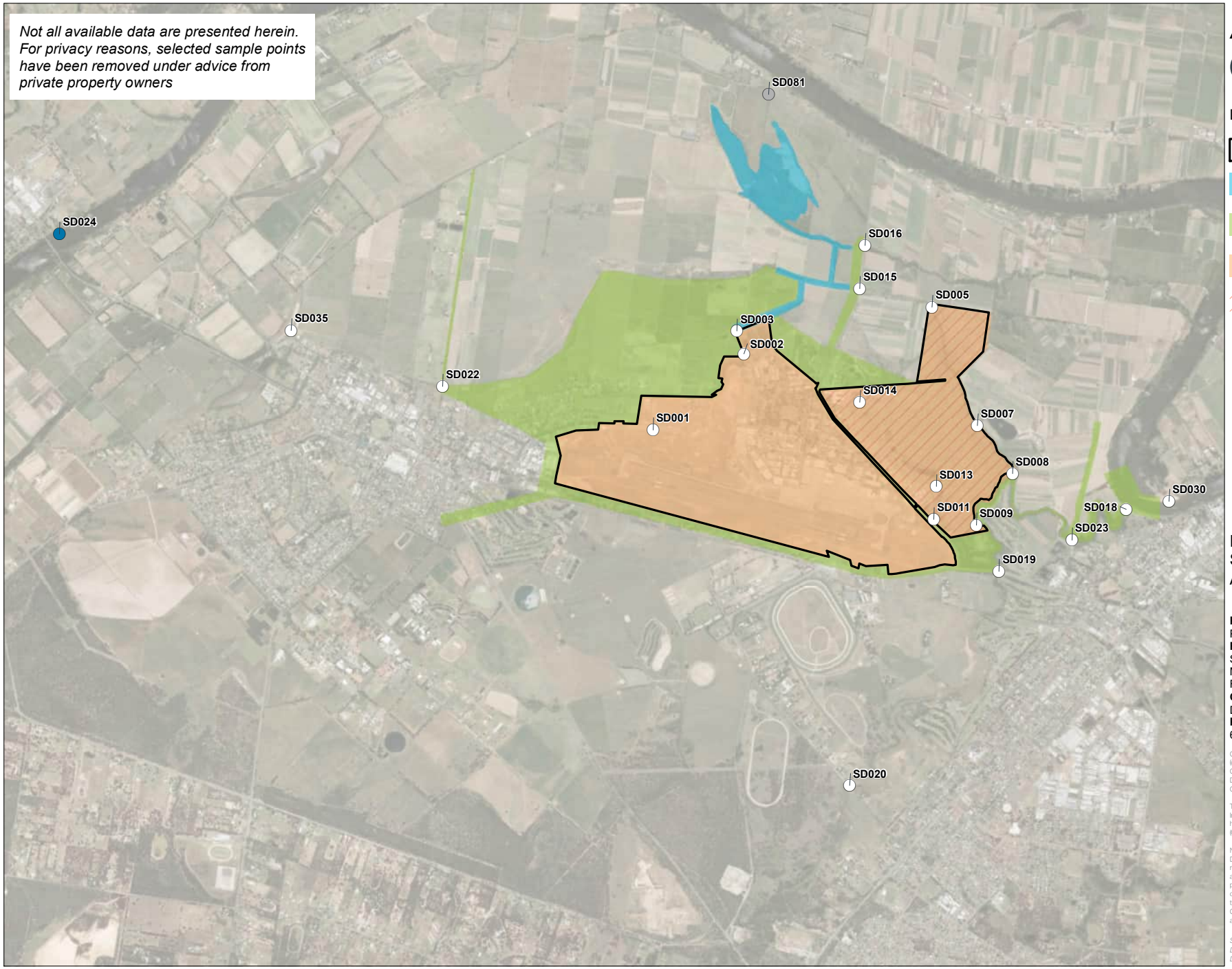

AECOM

N

0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- First time detection of PFOS+PFHxS and/or PFOA
- Sampled, no first time detection or exceedance
- Location not accessed and/or sampled

FIGURE F8: SEDIMENT ANALYTICAL RESULTS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2022
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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Appendix B

Tables

Appendix B Tables

Table T1 - Gauging and Geochemical Parameters

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										Field					
										Dissolved Oxygen	Redox Er	Redox Eh (Corrected)	Temperature	Electric Conductivity	pH
										mg/L	mV	mV	oC	µS/cm	pH Units
Location Code	Alternative Name	Date	Top of Casing (mAHD)	Water Depth (mBTOC)	Water level (mAHD)	Base of Well (mBTOC)	Top Screen (mBTOC)	Bottom Screen (mBTOC)	SampleComments						
MW001	MW01	26/05/2022	10.052	4.651	5.401	9.38	5.5	8.5	Clear, low turbidity, no sheen, no odour	1.06	108.5	314.3	19.7	1048	6.85
MW002	MW02	26/05/2022	9.86	3.4	6.46	9.76	5.9	8.9	Light brown, medium turbidity, no sheen, no odour, sediment on IP	1.4	137.8	343.6	19.5	3062	7.06
MW004	MW04	26/05/2022	7.2	0.652	6.548	12.88	-	-	Clear, low turbidity, no sheen, no odour	1.02	28.8	234.6	18.2	2557	6.57
MW005	MW05	26/05/2022	9.113	1.821	7.292	9.91	-	-	Light brown, low turbidity, no sheen, no odour	6.51	59	264.8	17.6	99.6	6.61
MW007	MW07	25/05/2022	16.03	7.816	8.214	11.97	8.8	11.8	Light brown, no turbidity, no sheen, no odour	2.97	154.7	360.5	21.7	5276	7.08
MW008	MW08	25/05/2022	20.93	11.69	9.24	16.49	12	15	Clear, no turbidity, no sheen, organic odour, sediment on IP	1.48	13	218.8	19	3032	6.55
MW009	MW09	25/05/2022	20.44	11.124	9.316	13.16	-	-	Clear, no turbidity, no sheen, no odour	1.15	166.1	371.9	20.3	4630	6.28
MW010	MW10	25/05/2022	21.06	11.566	9.494	21.76	17.9	20.9	Clear, no turbidity, no sheen, no odour, sediment on IP.	1.95	54.6	260.4	19.4	1041	6.53
MW012	MW12	27/05/2022	6.64	0.11	6.53	4.1	1	4	Light brown, low turbidity, no sheen, no odour, well casing observed to be damaged.	2.43	138.2	344	17.8	3604	6.32
MW013	MW13	27/05/2022	7.93	0.02	7.91	6.06	4	7	Clear, low turbidity, no sheen, no odour	0.92	132.2	338	18.3	1003	6.33
MW014	MW14	27/05/2022	6.24	0.11	6.13	9.42	5.3	8.3	Light grey, medium turbidity, no sheen, no odour, sediment on IP	1.56	128.4	334.2	19.3	784	7.19
MW015	MW15	27/05/2022	7.02	0.32	6.7	9.05	5.5	8.5	Light brown, low turbidity, no sheen, no odour, sediment on IP	0.52	84.5	290.3	19.9	610	6.86
MW016	MW16	26/05/2022	7.39	0.905	6.485	6.01	2	5	Light brown, low turbidity, no sheen, no odour	2.27	127.9	333.7	17	1599	7.65
MW017	MW17	27/05/2022	6.51	0.685	5.825	4.83	-	-	Clear, low turbidity, no sheen, no odour	1.26	156.7	362.5	18.4	3597	7.48
MW020	MW20	27/05/2022	8.945	2.012	6.933	6.53	-	-	Clear, no turbidity, no sheen, no odour	1.23	116.6	322.4	19.6	2335	6.71
MW021	MW21	27/05/2022	7.88	0.457	7.423	3.51	-	-	Brown, turbid, no sheen, no odour, sediment on IP.	1.17	103.5	309.3	18.8	605	6.75
MW022	MW22	30/05/2022	6.03	0.282	5.748	3.12	-	-	Light yellow, medium turbidity, no sheen, no odour	1.15	63.9	269.7	17.5	3298	7.06
MW023	MW23	27/05/2022	6.01	0.121	5.889	4.35	-	-	Light brown, medium turbidity, no sheen, no odour	2.4	112.7	318.5	16.6	1063	7.25
MW024	MW24	25/05/2022	19.92	11.97	7.95	15.13	12	15	Clear, low turbidity, no sheen, organic odour, water observed in gatic above TOC. Removed prior to opening	1.58	128	333.8	21	4473	6.55
MW025	MW25	24/05/2022	17.14	9.128	8.012	20.01	16.1	20.1	Light brown, medium turbidity, no sheen, no odour	1.7	80.9	286.7	19.7	2142	6.31
MW026	MW26	24/05/2022	16.9	8.842	8.058	12.07	9.2	12.2	Clear, low turbidity, no sheen, no odour, water observed in gatic above TOC. Removed prior to opening	1.85	3.6	209.4	20.7	791	6.57
MW027	MW27	25/05/2022	16.42	8.209	8.211	13.12	10.2	13.2	Light brown, medium turbidity, no sheen, no odour, sediment at bottom	1.75	189.6	395.4	19.9	2540	6.24
MW028	MW28	25/05/2022	16.9	9.185	7.715	11.42	8.2	11.2	Light brown, low turbidity, no sheen, no odour, water observed in gatic above TOC. Removed prior to opening	2.12	124.7	330.5	20.3	1618	7.75
MW030	MW30	26/05/2022	21.262	13.484	7.778	17.02	12.5	17.5	Light brown, medium turbidity, no sheen, no odour	2.25	150	355.8	17.8	1188	6.31
MW032	MW32	24/05/2022	17.81	11.844	5.966	14.65	11.85	14.85	Yellow, low turbidity, no sheen, no odour, water observed in gatic below TOC. Removed prior to opening	5.12	118.2	324	21.9	772	7.1
MW033	MW33	24/05/2022	14.84	7.996	6.844	12.56	9.5	12.5	Clear, no turbidity, no sheen, no odour, sediment at bottom, water observed in gatic below TOC. Removed prior to opening	4.33	121.1	326.9	22.2	149.7	6.88
MW034	MW34	24/05/2022	16.93	9.31	7.62	16.96	14	17	Clear, low turbidity, no sheen, no odour, water observed in gatic above TOC. Removed prior to opening	1.72	34.3	240.1	21.1	609	7.07
MW036	MW36	27/05/2022	19.82	12.42	7.4	22.17	17.8	21.8	Clear, no turbidity, no sheen, hydrocarbon odour, sediment on IP	0.65	150.9	356.7	20.4	1695	6.81
MW040	MW40	25/05/2022	19.52	10.334	9.186	18.31	15	18	Not enough volume for field paramaters, gatic lid damaged	-	-	-	-	-	-
MW041	MW41	25/05/2022	19.73	10.353	9.377	16.38	13.6	16.6	Clear, low turbidity, no sheen, no odour, sediment on IP	4.23	82.2	288	18.8	862	6.2
MW042	MW42	25/05/2022	18.32	10.122	8.198	16.23	13.3	16.3	Light brown, turbid, no sheen, no odour, water observed in gatic above TOC. Removed prior to opening. Sediment noted at bottom	1.04	76.2	282	21.9	2219	6.38
MW043	MW43	25/05/2022	16.45	8.44	8.01	17.8	14.9	17.9	Light brown, turbidity, no sheen, no odour, sediment on IP.water observed in gatic below TOC. Removed prior to opening	3.77	91.3	297.1	18.6	81.6	6.44
MW046	MW46	24/05/2022	16.71	8.734	7.976	18.4	14.9	17.9	Clear, low turbidity, no sheen, no odour	0.89	67.3	273.1	20.5	1571	6.23
MW047	MW47	25/05/2022	13.78	6.8	6.98	11.65	9	12	Clear, no turbidity, no sheen, no odour, sediment at bottom	2.45	116.8	322.6	20.5	358	6.91
MW048	MW48	25/05/2022	17.62	10.628	6.992	14.63	10.3	13.3	Light brown, low turbidity, no sheen, no odour	2.72	120	325.8	20	1670	7.01
MW050	MW50	25/05/2022	10.2	3.132	7.068	7.98	-	-	Clear, no turbidity, no sheen, no odour	3.33	144.7	350.5	18.5	297	7.23
MW051	MW51	25/05/2022	10.3	2.42	7.88	5.2	1.5	4.5	Brown, low turbidity, no sheen, no odour, well has no cap or monument lid	1.16	-70.8	135	18.6	575	7.12
MW052	MW52	25/05/2022	10.71	3.679	7.031	9.64	6	9	Light brown, low turbidity, no sheen, no odour, well has no cap	1.17	84.1	289.9	20.5	491.4	7.76
MW053	MW53	26/05/2022	20.95	11.751	9.199	16.57	13.5	16.5	Light yellow, turbidity, no sheen, hydrogen sulphide odour, water observed in gatic below TOC. Removed prior to opening, faulty J cap	1.39	-11.8	194	18.6	1208	7.11
MW054	MW54	24/05/2022	24.31	16.501	7.809	19.1	14.9	17.9	Light yellow, low turbidity, no sheen, no odour	0.56	120.8	326.6	20.2	2090	6.53
MW056	MW56	25/05/2022	19.39	11.465	7.925	15.53	11.5	16.1	Clear, low turbidity, no sheen, no odour	1.94	111.7	317.5	19.2	2970	5.92
MW057	MW57	31/05/2022	22.92	14.825	8.095	20.98	14.2	19.2	Clear, no turbidity, no sheen, no odour, sediment on IP	4.23	191.1	396.9	18.7	988	6.83
MW059	MW59	31/05/2022	20.74	12.705	8.035	NM	14.7	19.2	Light brown, medium turbidity, no sheen, no odour	3.64	214.7	420.5	18.6	5323	5.99
MW060	MW60	25/05/2022	17.89	9.921	7.969	15.64	12.8	15.8	Clear, no turbidity, no sheen, no odour, sediment at bottom	2.36	159.7	365.5	19.5	1465	6.46
MW061	MW61	25/05/2022	18.39	10.301	8.089	13.15	10.5	13.5	Clear, no turbidity, no sheen, no odour	1.03	25.2	231	19.6	637	6.38
MW062	MW62	27/05/2022	18.91	10.803	8.107	13.82	11.5	14.5	Light brown, low turbidity, no sheen, no odour, sediment on IP	3.87	147.6	353.4	18.9	5697	6.77
MW063	MW63	27/05/2022	19.62	11.639	7.981	15	12	14.5	Clear, low turbidity, no sheen, oil like odour, water observed in gatic above TOC. Removed prior to opening. sediment at bottom	1.33	112.4	318.2	19	2301	5.94
MW064	MW64	24/05/2022	17.86	9.68	8.18	14.88	10.2	14.2	Light yellow, low turbidity, no sheen, no odour	0.45	124.7	330.5	20.5	1255	6.42
MW065	MW65	24/05/2022	17.95	10.051	7.899	13.45	10	13	Light yellow, low turbidity, no sheen, no odour, sediment on IP	0.85	37.4	243.2	19.8	890	6.29
MW066	MW66	24/05/2022	18.03	10.067	7.963	NM	11	15	Clear, low turbidity, no sheen, organic odour, puddle over well, water observed in gatic above TOC. Removed prior to opening	0.98	11.7	217.5	20.3	1064	6.28
MW067	MW67	26/05/2022	18.6	10.533	8.067	14.67	11.7	14.7	Light brown, low turbidity, no sheen, no odour, sediment on IP	1.15	180.2	386	21	6233	6.78
MW068	MW68	26/05/2022	19.05	10.031	9.019	14.98	11.9	14.9	Light brown, medium turbidity, no sheen, no odour	1.29	127.9	333.7	20.5	785	6.17
MW069	MW69	27/05/2022	19.03	10.479	8.551	15.76	13	16	Light brown, medium turbidity, no sheen, no odour	1.4	139.4	345.2	17.9	366.6	6.25
MW070	MW70	26/05/2022	19.4	3.301	16.099	5.34	2.3	5.3	Clear, low turbidity, no sheen, no odour	4.22	58.4	264.2	20.1	166	6.32
MW071	MW71	26/05/2022	19.15	2.882	16.268	5.15	2	5	Light brown, medium turbidity, no sheen, no odour	5.55	81.8	287.6	21	89.7	6.49
MW072	MW72	24/05/2022	-	6.931	-	13.1	-	-	Light brown, low turbidity, no sheen, organic odour, No J cap	1.6	5.3	211.1	20.6	213.4	6.17
MW073	MW73	24/05/2022	15.331	7.262	8.069	11.69	10	13	Clear, low turbidity, no sheen, no odour	1.29	170.5	376.3	21	634	6.47
MW074	MW74	24/05/2022	15.63	7.657	7.973	12.93	10	14	Light brown, low turbidity, no sheen, no odour	1.39	1.6	207.4	19	948	6.62
MW075	MW75	30/05/2022	18.097	7.665	10.432	14.65	12	15	Light brown, medium turbidity, no sheen, no odour, sediment at bottom	1.2	100.7	306.5	17.8	514	6.28
MW076	MW76	31/05/2022	19.54	9.97	9.57	18.27	15	18	Clear, low turbidity, no sheen, no odour, sediment on IP	0.97	186	391.8	18.3	335.7	6.4
MW077	MW77	31/05/2022	19.942	10.109	9.833	22.22	19.5	22	Light yellow, low turbidity, no sheen, no odour	0.96	196.1	401.9	18.2	611	6.05
MW078	MW78	31/05/2022	19.807	10.206	9.601	17.23	15	18	Light brown, no turbidity, no sheen, no odour	2.48	172.2	378	20.1	563	7.29
MW079	MW79	31/05/2022	20.453	11.025	9.428	18.22	15	18	Light brown, medium turbidity, no sheen, no odour, sediment on IP	2.05	181.9	387.7	18.1	1617	6.38
MW081	MW81	30/05/2022	7.376	0.03	7.346	5.5	2.6	5.6	Light brown, medium turbidity, no sheen, no odour, sediment at bottom	1.37	86	291.8	16.9	1028	6.8
MW082	MW82	30/05/2022	8.781	0.716	8.065	5.74	3	6	Light brown, low turbidity, no sheen, no odour	1.84	103.6	309.4	18.6	1188	6.74
MW091	MW91	31/05/2022	8.345	1.852	6.493	6.51	3.5	6.5	Clear, low turbidity, no sheen, acidic odour	2.54	118.4	324.2	18.8	210.3	6.11
MW092	MW92	31/05/2022	8.995	4.435	4.56	21.55	19	22	Light grey, low turbidity, no sheen, no odour, sediment at bottom	0.93	50.2	256	17.8	1601	6.07
MW097	MW97	31/05/2022	6.465	1.36	5.105	7.24	4.3	7.3	Brown, turbid, No sheen, no odour, water observed in gatic above TOC. Removed prior to opening	0.99	52.9	258.7	17.7	176	6.8
MW098	MW98	30/05/2022	5.511	0	5.511	8.59	5.8	8.8	Light grey, low turbidity, no sheen, septic odour, J cap not secured properly	0.85	41	246.8	17.7	2021	6.72
MW106	-	31/05/2022	22.7	13.486	9.214	30.05	28	31	Clear, low turbidity, no sheen, no odour	2.01	150.1	355.9	18.5	210.7	6.03
MW107D	-	24/05/2022	23	15.239	7.761	31.94	27.5	30.5	Clear, no turbidity, no sheen, no odour, brown sediment noted at bottom	0.88	62.4	268.2	19.3	1333	6.07
MW107I	-	24/05/2022	22.8	15.124	7.676	26.12	21.8	24.8	Clear, low turbidity, no sheen, no odour	1.4	108	313.8	20.2	705	6.17
MW108	-	26/05/2022	21.3	13.46	7.84	29.2	24.5	27.5	Clear, low turbidity, no sheen, organic odour	0.61	103.4	309.2	18	2580	6.17
MW109	-	27/05/2022	6.2	0.44	5.76	13.53	10.4	13.4	Brown, turbid, no sheen, no odour	1.39	113.3	319.1	17.8	4636	6.72
MW110	-	27/05/2022	7.6	0.506	7.094	14.35	11.5	14.5	Light brown, low turbidity, no sheen, no odour	0.92	120.2	326	18.6	3269	6.49
MW111	-	26/05/2022	9.4	2.642	6.758	17.28	16	19	Clear, low turbidity, no sheen, no odour	1.6	125	330.8	18.3	8922	6.25
MW112	-	26/05/2022	6.8	0.269	6.531	15.43	12.2	15.2	Clear, low turbidity, no sheen, no odour	1.18	49.3	255.1	18.9	3144	6.41
MW113	-	26/05/2022	9.4	2.941	6.459	19.68	16	19	Clear, low turbidity, no sheen, no odour	1.7	-3	202.8	19.1	3380	7.09
MW114	-	26/05/2022	9.7	4.282	5.418	19.68	16.1	19.1	Light brown, low turbidity, no sheen, no odour	0.5	-17.3	188.5	19.8	1416	7.3

Notes
mBTOC - Meters below top of casing
mAHD - Meters Australian height Datum
mV - miliVolts
mg/L - milligrams per Litre
oC - degrees Celsius
µS/cm - micro Siemens per centremetre
Corrected field Redox measurement (Eh [mV]) = Er [mV] + 205.8
TOC - Top of Casing
IP - Interface Probe

Table T2: Groundwater Analytical Results

AECOM

| | | | | | | PFAS Full Suite | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Inorganics | | | | | | | | | | | | | | | | | | |

Table T3 - Field Observations and Geochemical Parameters

AECOM

					Field					
					Dissolved Oxygen	Redox Er	Redox Eh (Corrected)	Temperature	Electric Conductivity	pH
					mg/L	mV	mV	oC	µS/cm	pH_Units
Location Code	**Alternative Name**	**Date**	**Location Description**	**SampleComments**						
SW001	SW001	24/05/2022	lower side of culvert running under road. 1m wide x 0.2m depth of water. No flow observed. Minor foaming observed of unknown origin. Vegetation is grasses and reeds.	Pale Yellow, no turbidity, no odour, no sheen	4.27	86.5	292.3	21.7	203	7.02
SW002	SW002	27/05/2022	small grated stream. 2 m wide, 15 cm depth of water. flow observed. small shrubs. sampled from just below grate.	Pale Yellow, no turbidity, no odour, no sheen	5.04	105.8	311.6	16.7	233.2	7.35
SW003	SW003	30/05/2022	Small drainage channel running past STP. 2m wide and approximately 1m depth of water. Small Shrubs and grasses. No flow observed.	Light olive brown, medium turbidity, no odour, biosheen appearance	1.67	127.9	333.7	14.4	335	6.96
SW005	SW005	26/05/2022	Creek. 4m wide. 0.5m deep. No flow observed. Shrubs on each side of creek.	Light brown, low turbidity, no odour, biosheen appearance	2.37	82	287.8	15.6	1496	7.56
SW007	SW007	26/05/2022	5m wide creek and approximately 1m depth of water. Slow flow observed, small Shrubs on creek beds. Storm water outlet 10m upstream.	Clear, low turbidity, no odour, no sheen	4.71	48.2	254	16.4	1504	7.31
SW008	SW008	26/05/2022	10m wide creek/pond and approximately 1m depth of water, no flow observed. Grasses and Shrubs along banks.	Clear, low turbidity, no odour, no sheen	3.26	54	259.8	17.9	1018	6.87
SW009	SW009	26/05/2022	Creek 10m wide and approximately 1m depth of water. Storm water drain leading into stream. Sampled from storm water drain area. Flow observed. Shrubs along creek banks.	Clear, low turbidity, no odour, no sheen	5.21	45.9	251.7	18.4	562	7.05
SW011	SW011	27/05/2022	Large drainage pond. Sampled from culvert area. No flow. Approx 30m x 30m and approximately 1m depth of water. Reeds and grasses along banks.	Light brown, no turbidity, no odour, no sheen	9.27	89.3	295.1	18.4	193.2	8.07
SW013	SW013	27/05/2022	Creek 25m wide and unknown depth of water. Grasses reeds and shrubs. No flow observed.	Light olive brown, low turbidity, no odour, biosheen appearance	10.38	135.4	341.2	19	778	7.66
SW014	SW014	26/05/2022	Water way, 3m wide and approximately 0.3m depth of water, no flow observed. Reeds and grasses.	Light brown, low turbidity, organic odour, no sheen	0.6	10.7	216.5	13.5	147	6.78
SW015	SW015	30/05/2022	5m wide drainage channel and approxmately 0.5m depth of water. Water full of reeds and grasses. No flow observed.	Light olive brown, low turbidity, no odour, no sheen	4.61	73.3	279.1	12.8	1559	7.45
SW016	SW016	31/05/2022	creek 4m wide and approximately 0.5m depth of water. No flow observed. Small Shrubs.	Olive yellow, medium turbidity, organic odour, biosheen appearance	3	101.4	307.2	13.6	572	7.13
SW018	SW018	31/05/2022	Hawkesbury River 20m wide and unknown depth of water. Flow observed. Grass and sand on banks.	Light olive brown, medium turbidity, no odour, no sheen	6.12	146.3	352.1	15.2	623	7.01
SW019	SW019	31/05/2022	Creek under bridge 3m wide and approximately 0.3m depth of water. No flow observed. Grasses and Shrubs on banks.	Light olive brown, medium turbidity, no odour, no sheen	5.92	151.5	357.3	11.8	627	7.36
SW020	SW020	31/05/2022	Large creek 15m wide and unknown depth of water. No flow observed. Steep bank with grasses	Light olive brown, low turbidity, no odour, no sheen	4.79	147.3	353.1	12.2	669	6.93
SW022	SW022	30/05/2022	4m wide drainage channel and approximately 0.5m depth of water. Flow observed. Grass on sides.	Light olive brown, low turbidity, no odour, no sheen	2.2	89.8	295.6	14.3	789	7.32
SW023	SW023	31/05/2022	Creek under bridge 5m wide and approximatley 0.3m depth of water. Flow observed. Little Vegetation.	Light olive brown, low turbidity, no odour, no sheen	5.58	166	371.8	12.3	726	6.96
SW024	SW024	31/05/2022	Hawkesbury River 50m wide and unknown depth of water. Flow observed. Sand and grasses on banks.	Light olive brown, no turbidity, no odour, no sheen	6.7	147.2	353	15.9	118.2	7.25
SW030	SW030	31/05/2022	Hawkesbury River 40m wide and unknown depth of water. Flow observed. Sand and grasses on banks.	Light olive brown, no turbidity, no odour, no sheen	6.25	137.1	342.9	16.7	127.3	7.14
SW035	SW035	30/05/2022	Sampled from bank of river, 20m wide and unknown depth of water. Small Shrubs along river bank. No flow observed.	Light olive brown, low turbidity, no odour, no sheen	3.24	117.8	323.6	15.8	294	7.14
SW037	SW037	27/05/2022	Sample taken from sewerage treatment pond. Unknown depth of water. No Vegetation, no flow	Light brown, no turbidity, no odour, no sheen	5.58	77.5	283.3	16.1	297.4	7.66

Notes
mV - miliVolts
mg/L - milligrams per Litre
oC - degrees Celsius
µS/cm - micro Siemens per centremetre
Corrected field Redox measurement (Eh [mV]) = Er [mV] + 205.8

Table T4 - Surface Water Analytical Results

AECOM

				PFAS Full Suite																																			
				Sum of PFHxS and PFOS	Perfluorooctane sulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluorohexane sulfonic acid (PFHxS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorobutane sulfonic acid (PFBS)	Perfluorodecane sulfonic acid (PFDS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoropentane sulfonic acid (PFPeS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorooctane sulfonamide (FOSA)	Sum of PFAS	Sum of PFAS (WA DER List)	Sum of PFAS (PFOS + PFOA)
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR				0.01	0.01	0.01	0.01	0.05	0.05	0.05	0.05	0.1	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.05	0.05	0.02	0.05	0.02	0.01	0.01	0.01
PFAS NEMP 2020 Freshwater 99%					*0.00023*	*19*																																	
PFAS NEMP 2020 Recreational Water				**2**		**10**																																	
Location Code	**Alternative Name**	**Sampled Date Time**	**Sample Type**																																				
SW001	SW001	24/05/2022	Normal	**32.3**	*23*	1.57	9.28	<0.05	<0.05	0.33	0.89	1	0.7	0.06	1.67	3.78	0.68	1.96	<0.05	<0.02	0.28	1.67	0.13	0.48	1.65	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	49.2	45.2	-
SW002	SW002	27/05/2022	Normal	**107**	*66.1*	2.98	40.5	<0.05	<0.05	0.19	<0.05	1.4	0.03	<0.02	2.13	9.94	0.18	<0.02	<0.05	<0.02	<0.02	4.8	0.02	2.96	5.75	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	137	128	-
SW003	SW003	30/05/2022	Field_D	**97.3**	*60.6*	2.69	36.7	<0.05	<0.05	0.2	0.12	1.3	0.08	<0.02	2.11	9.33	0.2	2.19	<0.05	<0.02	0.04	4.47	0.09	2.47	5.19	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	128	120	-
SW003	SW003	30/05/2022	Normal	**129**	*74*	3.49	54.9	<0.05	<0.05	0.25	0.11	1.4	0.09	0.03	2.04	12.4	0.23	3.28	<0.05	<0.02	0.05	5.86	0.07	3.2	5.64	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	167	158	-
SW005	SW005	26/05/2022	Normal	0.39	*0.19*	0.01	0.2	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.42	0.42	-
SW007	SW007	26/05/2022	Field_D	0.31	*0.09*	0.01	0.22	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	0.05	<0.02	<0.02	<0.05	<0.02	<0.02	0.03	<0.02	<0.02	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.43	0.4	-
SW007	SW007	26/05/2022	Normal	0.32	*0.1*	<0.01	0.22	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	0.06	<0.02	<0.02	<0.05	<0.02	<0.02	0.03	<0.02	<0.02	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.43	0.41	-
SW008	SW008	26/05/2022	Normal	0.33	*0.09*	<0.01	0.24	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.04	<0.02	<0.02	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.41	0.37	-
SW009	SW009	26/05/2022	Normal	**14.7**	*9.47*	0.42	5.27	<0.05	<0.05	<0.05	<0.05	0.2	<0.02	<0.02	0.19	1.44	<0.02	0.26	<0.05	<0.02	<0.02	0.7	<0.02	0.32	0.73	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	19	18	-
SW011	SW011	27/05/2022	Interlab_D	**11**	*7.9*	0.31	3.1	<0.02	<0.01	0.06	<0.02	0.1	<0.02	<0.05	0.15	0.86	0.01	0.2	<0.5	<0.1	<0.02	0.49	<0.02	0.23	0.46	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.1	14	-	8.2
SW011	SW011	27/05/2022	Normal	**17.3**	*12*	0.37	5.28	<0.05	<0.05	0.07	<0.05	0.1	<0.02	<0.02	0.18	1.27	<0.02	0.32	<0.05	<0.02	<0.02	0.61	<0.02	0.4	0.57	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	21.2	20.2	-
SW013	SW013	27/05/2022	Normal	0.49	*0.17*	0.01	0.32	<0.05	<0.05	<0.05	<0.05	0.1	<0.02	<0.02	<0.02	0.06	<0.02	<0.02	<0.05	<0.02	<0.02	0.08	<0.02	<0.02	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.78	0.74	-
SW014	SW014	26/05/2022	Normal	**3.52**	*1.24*	0.11	2.28	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	0.06	0.85	<0.02	0.18	<0.05	<0.02	<0.02	0.22	<0.02	0.08	0.22	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	5.24	4.94	-
SW015	SW015	30/05/2022	Normal	0.53	*0.24*	<0.01	0.29	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.53	0.53	-
SW016	SW016	30/05/2022	Normal	0.23	*0.06*	<0.01	0.17	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.05	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.28	0.28	-
SW018	SW018	31/05/2022	Interlab_D	0.48	*0.29*	0.02	0.19	<0.02	<0.01	<0.01	<0.02	0.03	<0.02	<0.05	<0.01	0.05	<0.01	<0.02	<0.5	<0.1	<0.02	0.03	<0.02	<0.01	0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.1	0.64	-	0.32
SW018	SW018	31/05/2022	Normal	0.78	*0.44*	0.02	0.34	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	0.07	<0.02	0.02	<0.05	<0.02	<0.02	0.05	<0.02	<0.02	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.98	0.94	-
SW019	SW019	31/05/2022	Field_D	0.06	*0.03*	<0.01	0.03	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.06	0.06	-
SW019	SW019	31/05/2022	Normal	0.07	*0.04*	<0.01	0.03	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.07	0.07	-
SW020	SW020	31/05/2022	Normal	0.11	*0.07*	0.01	0.04	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.12	0.12	-
SW022	SW022	30/05/2022	Interlab_D	0.07	*0.03*	<0.01	0.05	<0.02	<0.01	<0.01	<0.02	0.04	<0.02	<0.05	<0.01	<0.01	<0.01	<0.02	<0.5	<0.1	<0.02	<0.01	<0.02	<0.01	<0.01	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.1	0.12	-	0.03
SW022	SW022	30/05/2022	Normal	0.11	*0.04*	<0.01	0.07	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.11	0.11	-
SW023	SW023	31/05/2022	Normal	0.83	*0.46*	0.03	0.37	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	0.08	<0.02	0.03	<0.05	<0.02	<0.02	0.05	<0.02	<0.02	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	1.06	1.02	-
SW024	SW024	31/05/2022	Interlab_D	<0.01	*<0.01*	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	<0.01	<0.02	<0.5	<0.1	<0.02	<0.01	<0.02	<0.01	<0.01	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.1	<0.01	-	<0.01
SW024	SW024	31/05/2022	Normal	<0.01	*<0.01*	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.01	<0.01	-
SW030	SW030	31/05/2022	Field_D	<0.01	*<0.01*	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.01	<0.01	-
SW030	SW030	31/05/2022	Normal	<0.01	*<0.01*	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.01	<0.01	-
SW035	SW035	30/05/2022	Normal	0.08	*0.03*	<0.01	0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	0.08	0.08	-
SW037	SW037	27/05/2022	Normal	0.83	*0.56*	0.02	0.27	<0.05	<0.05	<0.05	<0.05	<0.1	<0.02	<0.02	<0.02	0.09	<0.02	0.03	<0.05	<0.02	<0.02	0.03	<0.02	<0.02	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	1.02	1	-

Notes:

LOR	Limit of Reporting
Normal	Primary Sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first time detection above LOR for PFOS+PFHxS or PFOA
	Denotes new exceedence of human health screening criteria and/or ecological criteria

Table T4 - Surface Water Analytical Results

AECOM

				Inorganics																				Metals						
				Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Nitrite + Nitrate as N	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Ammonia as N (Filtered)	Anions Total	Bromine (Filtered)	Cations Total	Chloride	Ionic Balance	Nitrate (as N)	Nitrate (as N) (Filtered)	Nitrite (as N)	Nitrite (as N) (Filtered)	Filtered Total Phosphorus as P	Sodium (Filtered)	Sulfate as SO4 - Turbidimetric (Filtered)	Sulphate	Aluminium (Filtered)	Calcium (Filtered)	Iron (Filtered)	Magnesium (Filtered)	Manganese (Filtered)	Phosphorus	Potassium (Filtered)
				mg/L	mg/L	mg/L	µg/L	mg/L	µg/L	µg/L	meq/L	µg/L	meq/L	mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR				1	1	0.01	1000	1	10	5	0.01	100	0.01	1	0.01	0.01	0.005	0.01	0.005	0.01	1	1	1	0.01	1	0.05	1	0.001	0.05	1
PFAS NEMP 2020 Freshwater 99%																														
PFAS NEMP 2020 Recreational Water																														
Location Code	**Alternative Name**	**Sampled Date Time**	**Sample Type**																											
SW001	SW001	24/05/2022	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW002	SW002	27/05/2022	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW003	SW003	30/05/2022	Field_D	60	<1	0.43	<1000	60	290	-	2.53	<100	2.5	39	-	0.39	-	0.04	-	0.37	26	11	-	0.02	16	0.99	6	0.403	-	3
SW003	SW003	30/05/2022	Normal	66	<1	0.44	<1000	66	250	-	2.56	100	2.5	36	-	0.39	-	0.05	-	0.76	26	11	-	0.02	16	1.01	6	0.379	-	3
SW005	SW005	26/05/2022	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW007	SW007	26/05/2022	Field_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW007	SW007	26/05/2022	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW008	SW008	26/05/2022	Normal	-	-	0.14	-	-	90	-	-	700	-	-	-	0.14	-	<0.01	-	0.18	-	-	-	0.04	-	2.43	-	0.544	-	-
SW009	SW009	26/05/2022	Normal	-	-	0.16	-	-	150	-	-	400	-	-	-	0.16	-	<0.01	-	0.18	-	-	-	0.03	-	0.89	-	0.916	-	-
SW011	SW011	27/05/2022	Interlab_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW011	SW011	27/05/2022	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW013	SW013	27/05/2022	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW014	SW014	26/05/2022	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW015	SW015	30/05/2022	Normal	385	<1	0.11	<1000	385	180	-	21.8	1400	20.4	440	3.38	0.11	-	<0.01	-	0.11	284	84	-	<0.01	64	<0.05	58	0.793	-	4
SW016	SW016	30/05/2022	Normal	164	<1	0.55	<1000	164	1280	-	7.34	500	7.19	122	1.04	0.51	-	0.04	-	0.2	68	30	-	<0.01	42	0.28	21	1.41	-	16
SW018	SW018	31/05/2022	Interlab_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	SW018	31/05/2022	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	SW019	31/05/2022	Field_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	SW019	31/05/2022	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW020	SW020	31/05/2022	Normal	49	<1	0.69	<1000	49	130	-	8.59	500	7.88	244	4.29	0.67	-	0.02	-	0.17	116	35	-	0.18	17	0.96	22	0.169	-	7
SW022	SW022	30/05/2022	Interlab_D	210	<5	-	<5000	210	-	400	-	1100	-	190	-2	-	0.095	-	0.054	-	120	-	35	<0.01	43	0.53	27	0.73	0.2	13
SW022	SW022	30/05/2022	Normal	194	<1	0.1	<1000	194	410	-	10.2	700	9.66	196	2.7	0.05	-	0.05	-	0.21	115	38	-	<0.01	41	0.45	28	0.653	-	12
SW023	SW023	31/05/2022	Normal	61	<1	1.48	<1000	61	210	-	8.27	400	7.46	225	5.17	1.45	-	0.03	-	0.21	103	34	-	0.08	22	0.56	21	0.568	-	6
SW024	SW024	31/05/2022	Interlab_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	SW024	31/05/2022	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	SW030	31/05/2022	Field_D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	SW030	31/05/2022	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW035	SW035	30/05/2022	Normal	77	<1	0.03	<1000	77	100	-	3.17	200	3.21	52	0.6	0.03	-	<0.01	-	0.12	32	8	-	0.11	18	1.47	9	0.312	-	7
SW037	SW037	27/05/2022	Normal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

LOR	Limit of Reporting
Normal	Primary Sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first time detection above LOR for PFOS+PFHxS c
	Denotes new exceedence of human health screening criteri

Table T5 - Sediment Observations

Location	Alternate Name	Easting	Northing	Date	Depth Range	Descriptions
SD001	SD001	293475.328	6280121.404	24/05/2022	0 - 0.1	Sandy SILT: Dark brown, wet with minor organics (reeds).
SD002	SD002	294183.905	6280713.965	27/05/2022	0 - 0.1	Sandy SILT: Brown, fine grained with minor organics (plant matter)
SD002	SD002	294183.905	6280713.965	27/05/2022	0 - 0.1	Sandy SILT: Brown, fine grained with minor organics (plant matter)
SD003	SD003	294128.979	6280891.748	27/05/2022	0 - 0.1	Sandy SILT: Brown, fine grained with minor organics (plant matter)
SD005	SD005	295651.105	6281077.754	26/05/2022	0 - 0.1	Sandy CLAY: Dark grey, medium plasticity, soft with organics (rootlets)
SD007	SD007	296003.964	6280152.958	26/05/2022	0 - 0.1	Sandy SILT: Dark grey, fine sand with minor organics (leaf litter)
SD008	SD008	296277.208	6279780.573	26/05/2022	0 - 0.1	Sandy SILT: Dark grey/brown, fine grained sands
SD009	SD009	295995.241	6279380.005	26/05/2022	0 - 0.1	SILT: Dark brown, fine trace sand
SD011	SD011	295662.948	6279423.215	27/05/2022	0 - 0.1	Sandy CLAY: Brown, medium plasticity, soft, fine grained sand.
SD013	SD013	295683.354	6279679.01	27/05/2022	0 - 0.1	Sandy SILT: Dark grey/brown, Fine grained with minor organics (rootlets/plant matter)
SD014	SD014	295087.696	6280334.806	26/05/2022	0 - 0.1	Sandy SILT: Brown, fine grained sand with minor organics (rootlets)
SD015	SD015	295086.581	6281223.141	30/05/2022	0 - 0.1	Gravelly SILT: Brown, fine to medium sub rounded gravels, minor organics
SD016	SD016, PW004	295128.735	6281560.077	30/05/2022	0 - 0.1	Sandy CLAY: Pale grey/brown, fine to coarse grained sand, low plasticity and soft
SD018	SD018	297165.365	6279500.683	31/05/2022	0 - 0.1	Sandy CLAY: Brown fine sand, low plasticity, soft
SD019	SD019	296171.632	6279019.519	31/05/2022	0 - 0.1	Sandy Clay: Brown, fine grained sand with minor organics (plant matter)
SD020	SD020	295008.232	6277347.646	31/05/2022	0 - 0.1	Sandy CLAY: Grey brown, medium plasticity, soft, fine sand. Minor organics (grass)
SD022	SD022	291835.389	6280460.686	30/05/2022	0 - 0.1	Sandy SILT: Grey brown, fine to medium sand
SD023	SD023, PW001	296740.19	6279262.279	31/05/2022	0 - 0.1	Sandy SILT: Dark brown, fine to medium sand with minor organics (rootlets and algae)
SD024	SD024	288848.618	6281647.377	31/05/2022	0 - 0.1	SAND: Light brown, fine to medium sand, poorly sorted, trace silt.
SD030	SD030, PW003	297497.294	6279565.379	31/05/2022	0 - 0.1	SAND: Light brown, fine to medium sand, poorly sorted, trace silt.
SD035	SD035	290655.83	6280895.65	30/05/2022	0 - 0.1	Sandy CLAY: Brown, high plasticity, soft, fine sand, trace rootlets.

Table T6 - Sediment Analytical Results

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Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
MW001	MW01	0902_MW01_030717	3/07/2017	Normal	<0.01	<0.01	0.11	0.11	0.04	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
MW001	MW01	0902_MW001_191108	8/11/2019	Normal	<0.01	<0.01	0.10	0.10	0.03	0.03	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16
MW001	MW01	0902_MW001_200514	14/05/2020	Normal	<0.01	<0.01	0.13	0.13	0.03	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
MW001	MW01	0902_MW001_201112	12/11/2020	Normal	<0.01	<0.01	0.11	0.11	0.03	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
MW001	MW01	0902_QC106_201112	12/11/2020	Field_D	<0.01	<0.01	0.09	0.09	0.02	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
MW001	MW01	0902_MW001_210506	6/05/2021	Normal	<0.01	<0.01	0.12	0.12	0.04	0.03	<0.02	-	<0.02	<0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
MW001	MW01	0902_MW001_211129	29/11/2021	Normal	<0.01	<0.01	0.12	0.12	0.03	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
MW001	MW01	0902_QC112_211129	29/11/2021	Field_D	<0.01	<0.01	0.14	0.14	0.04	0.03	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.21
MW001	MW01	0902_MW001_220526	26/05/2022	Normal	<0.01	<0.01	0.12	0.12	<0.02	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
MW002	MW02	0902_MW02_030717	3/07/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	MW02	0902_MW002_191108	8/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	MW02	0902_MW002_200514	14/05/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	MW02	0902_QC205_200514	14/05/2020	Interlab_D	<0.01	<0.02	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.16	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW002	MW02	0902_MW002_201112	12/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	MW02	0902_QC203_201112	12/11/2020	Interlab_D	<0.01	<0.02	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW002	MW02	0902_MW002_210506	6/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	MW02	0902_QC212_211129	29/11/2021	Interlab_D	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	<0.01
MW002	MW02	0902_MW002_211129	29/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	MW02	0902_MW002_220526	26/05/2022	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW004	MW04	0902_MW04_070717	7/07/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW004	MW04	0902_MW004_211125	25/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW004	MW04	0902_MW004_220526	26/05/2022	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW005	MW05	0902_MW05_070717	7/07/2017	Normal	0.18	*2.37*	6.76	9.13	0.62	0.53	0.17	-	<0.02	0.2	0.10	0.45	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.5
MW005	MW05	0902_MW005_191108	8/11/2019	Normal	<0.05	*0.18*	0.58	0.76	0.06	0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	0.87
MW005	MW05	0902_MW005_200513	13/05/2020	Normal	<0.01	*0.12*	0.38	0.50	0.03	0.03	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56
MW005	MW05	0902_QC203_200514	14/05/2020	Interlab_D	<0.01	*0.055*	0.18	0.235	0.014	0.013	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW005	MW05	0902_MW005_201112	12/11/2020	Normal	<0.01	*0.13*	0.44	0.57	0.03	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.62
MW005	MW05	0902_QC103_201112	12/11/2020	Field_D	<0.01	*0.13*	0.33	0.46	0.04	0.03	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.53
MW005	MW05	0902_MW005_210506	6/05/2021	Normal	<0.01	*0.04*	0.10	0.14	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
MW005	MW05	0902_MW005_211125	25/11/2021	Normal	<0.01	*0.04*	0.08	0.12	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
MW005	MW05	0902_MW005_220526	26/05/2022	Normal	<0.01	*0.10*	0.04	0.14	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
MW006	MW06	0902_MW06_070717	7/07/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW006	MW06	0902_MW006_191108	8/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW006	MW06	0902_QC102_191108	8/11/2019	Field_D	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW006	MW06	0902_MW006_200514	14/05/2020	Normal	<0.01	*0.08*	0.02	0.10	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10
MW006	MW06	0902_QC204_200514	14/05/2020	Interlab_D	<0.01	*0.041*	0.017	0.058	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW006	MW06	0902_MW006_201112	12/11/2020	Normal	<0.01	*0.02*	0.02	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW007	MW07	0902_MW07_100717	10/07/2017	Normal	<0.01	<0.01	0.16	0.16	0.04	0.03	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23
MW007	MW07	0902-MW007_191113	13/11/2019	Normal	<0.01	<0.01	0.04	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW007	MW07	0902_MW007_200511	11/05/2020	Normal	<0.01	<0.01	0.08	0.08	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
MW007	MW07	0902_MW007_201110	10/11/2020	Normal	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW007	MW07	0902_MW007_210503	3/05/2021	Normal	<0.01	<0.01	0.09	0.09	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09
MW007	MW07	0902_QC100_210503	3/05/2021	Field_D	<0.01	<0.01	0.10	0.10	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
MW007	MW07	0902_MW007_211123	23/11/2021	Normal	<0.01	<0.01	0.05	0.05	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW007	MW07	0902_MW007_220525	25/05/2022	Normal	<0.01	*0.01*	0.07	0.08	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
MW008	MW08	0902_MW08_300617	30/06/2017	Normal	<0.01	<0.01	0.18	0.18	0.05	0.04	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27
MW008	MW08	0902_MW008_191114	14/11/2019	Normal	<0.01	<0.01	0.16	0.16	0.11	0.08	<0.02	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43
MW008	MW08	0902_MW008_200511	11/05/2020	Normal	<0.01	<0.01	0.30	0.30	0.11	0.09	<0.02	-	<0.02	0.4	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.96
MW008	MW08	0902_MW008_201110	10/11/2020	Normal	<0.01	<0.01	0.26	0.26	0.11	0.10	<0.02	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.55
MW008	MW08	0902_QC200_201110	10/11/2020	Interlab_D	<0.01	<0.02	0.23	0.23	0.096	0.076	<0.01	<0.01	<0.01	<0.05	<0.02	0.066	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW008	MW08	0902_MW008_210503	3/05/2021	Normal	<0.01	*0.02*	0.31	0.33	0.16	0.13	<0.02	-	<0.02	<0.1	0.03	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.81

AECOM

Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Alternative Name	Field ID	Date	Sample Type																														
MW008	MW08	0902_MW008_211123	23/11/2021	Normal	<0.01	*0.05*	0.56	0.61	0.20	0.12	<0.02	-	<0.02	<0.1	0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.05
MW008	MW08	0902_QC102_211123	23/11/2021	Field_D	<0.01	*0.06*	0.77	0.83	0.22	0.15	<0.02	-	<0.02	<0.1	0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.34
MW008	MW08	0902_QC201_220525	25/05/2022	Interlab_D	<0.01	*0.07*	0.53	0.60	0.14	0.12	<0.01	-	<0.02	0.03	<0.02	0.07	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.97
MW008	MW08	0902_MW008_220525	25/05/2022	Normal	<0.01	*0.07*	0.43	0.50	0.11	0.10	<0.02	-	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.78
MW009	MW09	0902_MW09_300617	30/06/2017	Normal	<0.01	*0.06*	0.10	0.16	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16
MW009	MW09	0902_MW009_210503	3/05/2021	Normal	<0.01	*0.15*	0.03	0.18	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
MW009	MW09	0902_MW009_211123	23/11/2021	Normal	<0.01	*0.06*	0.02	0.08	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
MW009	MW09	0902_MW009_220525	25/05/2022	Normal	<0.01	*0.12*	0.03	0.15	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15
MW010	MW10	0902_MW10_300617	30/06/2017	Normal	0.02	*0.16*	0.56	0.72	0.07	0.05	<0.02	-	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.96
MW010	MW10	0902_MW010_191114	14/11/2019	Normal	0.03	*0.88*	0.41	1.29	0.05	0.05	0.02	-	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.54
MW010	MW10	0902_MW010_200511	11/05/2020	Normal	0.21	*7.62*	3.41	11.0	0.49	0.44	0.15	-	<0.02	<0.1	0.19	1.04	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.6
MW010	MW10	0902_MW010_201110	10/11/2020	Normal	<0.01	*0.33*	0.20	0.53	0.03	0.03	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.64
MW010	MW10	0902_MW010_210503	3/05/2021	Normal	0.19	*4.67*	3.47	8.14	0.54	0.54	0.12	-	<0.02	0.1	0.22	1.19	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.2
MW010	MW10	0902_MW010_211123	23/11/2021	Normal	<0.01	*0.16*	0.16	0.32	0.04	0.02	<0.02	-	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.45
MW010	MW10	0902_MW010_220525	25/05/2022	Normal	0.32	*5.60*	4.70	10.3	0.66	0.69	0.16	-	<0.02	0.1	0.31	1.81	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.5
MW012	MW12	0902_MW12_030717	3/07/2017	Normal	0.22	*0.73*	5.91	6.64	2.14	1.21	0.10	-	<0.02	<0.1	0.42	1.34	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.2
MW012	MW12	0902_QC103_030717	3/07/2017	Field_D	0.22	*0.73*	5.99	6.72	2.14	1.25	0.11	-	<0.02	<0.1	0.42	1.36	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.4
MW012	MW12	0902_MW012_191108	8/11/2019	Normal	0.99	*13.8*	21.6	35.4	1.87	2.80	0.84	-	<0.02	0.3	0.64	3.10	0.52	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	46.6
MW012	MW12	0902_MW012_200514	14/05/2020	Normal	1.01	*7.98*	23.0	31.0	3.20	4.11	1.03	-	0.02	0.5	0.94	4.53	0.71	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	47.1
MW012	MW12	0902_MW012_201112	12/11/2020	Normal	0.78	*5.65*	21.4	27.0	2.54	2.73	0.63	-	<0.02	0.3	0.72	2.96	0.46	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	38.2
MW012	MW12	0902_QC206_201112	12/11/2020	Interlab_D	0.44	*2.7*	10	12.7	1.7	1.5	0.21	<0.01	<0.01	0.31	0.48	2	0.29	0.017	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	0.015	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW012	MW12	0902_MW012_210506	6/05/2021	Normal	0.34	*1.47*	9.97	11.4	1.43	1.63	0.21	-	<0.02	<0.1	0.41	1.97	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.7
MW012	MW12	0902_QC103_210506	6/05/2021	Field_D	0.31	*1.63*	8.90	10.5	1.54	1.72	0.22	-	<0.02	0.3	0.38	1.65	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16.9
MW012	MW12	0902_MW012_211129	29/11/2021	Normal	0.12	*0.98*	3.42	4.40	0.63	0.54	0.08	-	<0.02	<0.1	0.13	0.72	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.71
MW012	MW12	0902_MW012_220527	27/05/2022	Normal	0.06	*0.41*	2.13	2.54	0.40	0.42	0.04	-	<0.02	<0.1	0.08	0.30	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.88
MW013	MW13	0902_MW13_030717	3/07/2017	Normal	<0.01	*0.08*	1.23	1.31	0.38	0.22	<0.02	-	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.97
MW013	MW13	0902_MW013_191108	8/11/2019	Normal	<0.01	*0.30*	34.9	35.2	2.36	4.48	0.51	-	<0.02	0.1	0.12	0.56	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	43.3
MW013	MW13	0902_MW013_200514	14/05/2020	Normal	0.08	*0.34*	25.0	25.3	2.11	3.11	0.28	-	<0.02	0.4	0.14	0.52	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	32.0
MW013	MW13	0902_MW013_201112	12/11/2020	Normal	0.12	*0.55*	17.8	18.4	1.37	1.58	0.19	-	<0.02	0.3	0.12	0.42	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	22.5
MW013	MW13	0902_QC203_210506	6/04/2021	Interlab_D	0.015	*0.13*	4.7	4.83	0.52	0.53	0.02	<0.01	<0.01	0.12	0.037	0.13	0.014	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW013	MW13	0902_MW013_210506	6/05/2021	Normal	0.03	*0.11*	5.64	5.75	0.55	0.65	0.05	-	<0.02	<0.1	0.05	0.23	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.33
MW013	MW13	0902_MW013_211129	29/11/2021	Normal	0.01	*0.08*	1.85	1.93	0.35	0.28	<0.02	-	<0.02	<0.1	0.02	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.74
MW013	MW13	0902_MW013_220527	27/05/2022	Normal	0.02	*0.10*	1.92	2.02	0.34	0.27	0.02	-	<0.02	<0.1	0.05	0.26	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.00
MW014	MW14	0902_MW14_030717	3/07/2017	Normal	<0.01	*0.04*	0.90	0.94	0.44	0.26	<0.02	-	<0.02	<0.1	0.04	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.84
MW014	MW14	0902_MW014_191108	8/11/2019	Normal	0.02	*0.24*	0.14	0.38	<0.02	<0.02	<0.02	-	<0.02	<0.1	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.49
MW014	MW14	0902_MW014_200514	14/05/2020	Normal	0.01	<0.01	1.11	1.11	0.32	0.24	<0.02	-	<0.02	<0.1	0.04	0.24	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.96
MW014	MW14	0902_MW014_201112	12/11/2020	Normal	0.01	*0.07*	1.08	1.15	0.30	0.20	<0.02	-	<0.02	<0.1	0.04	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.87
MW014	MW14	0902_MW014_210506	6/05/2021	Normal	<0.01	*0.07*	1.38	1.45	0.34	0.32	0.02	-	<0.02	<0.1	0.05	0.29	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.49
MW014	MW14	0902_MW014_211129	29/11/2021	Normal	0.01	*0.06*	1.25	1.31	0.37	0.28	0.02	-	<0.02	<0.1	0.04	0.28	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.33
MW014	MW14	0902_MW014_220527	27/05/2022	Normal	0.02	*0.10*	1.56	1.66	0.39	0.39	0.04	-	<0.02	<0.1	0.07	0.32	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.92
MW015	MW15	0902_MW15_030717	3/07/2017	Normal	0.20	*3.92*	5.07	8.99	0.95	0.73	0.24	-	<0.02	<0.1	0.20	0.64	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.0
MW015	MW15	0902_MW015_191108	8/11/2019	Normal	0.18	*3.73*	4.38	8.11	0.55	0.68	0.25	-	<0.02	<0.1	0.14	0.70	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.7
MW015	MW15	0902_MW015_200514	14/05/2020	Normal	0.06	<0.01	1.10	1.10	0.15	0.13	0.06	-	<0.02	<0.1	0.03	0.17	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.72
MW015	MW15	0902_MW015_201112	12/11/2020	Normal	0.09	*2.02*	2.09	4.11	0.24	0.21	0.09	-	<0.02	<0.1	0.05	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.05
MW015	MW15	0902_MW015_210506	6/05/2021	Normal	0.06	*0.86*	1.33	2.19	0.15	0.17	0.06	-	<0.02	<0.1	0.03	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.89
MW015	MW15	0902_MW015_211129	29/11/2021	Normal	0.07	*1.79*	2.05	3.84	0.28	0.28	0.10	-	<0.02	<0.1	0.04	0.31	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.96
MW015	MW15	0902_MW015_220527	27/05/2022	Normal	0.13	*3.02*	3.27	6.29	0.41	0.43	0.19	-	<0.02	<0.1	0.09	0.43	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.03
MW016	MW16	0902_MW16_070717	7/07/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	MW16	0902_MW016_191108	8/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	MW16	0902_MW016_200514	14/05/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	MW16	0902_MW016_201112	12/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01

AECOM

Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Alternative Name	Field ID	Date	Sample Type																														
MW016	MW16	0902_MW016_210506	6/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	MW16	0902_MW016_211129	29/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	MW16	0902_QC110_211129	29/11/2021	Field_D	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	MW16	0902_MW016_220526	26/05/2022	Normal	<0.01	*0.01*	<0.01	0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
MW017	MW17	0902_MW17_030717	3/07/2017	Normal	<0.01	*1.03*	5.06	6.09	0.68	0.56	0.06	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.42
MW017	MW17	0902_MW017_191108	8/11/2019	Normal	0.04	*1.71*	5.17	6.88	0.37	0.55	0.09	-	<0.02	<0.1	<0.02	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.10
MW017	MW17	0902_MW017_200514	14/05/2020	Normal	0.30	*6.92*	12.0	18.9	0.43	0.66	0.42	-	<0.02	0.6	0.21	1.03	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	22.7
MW017	MW17	0902_MW017_201112	12/11/2020	Normal	0.14	*5.93*	8.78	14.7	0.33	0.39	0.19	-	<0.02	0.1	0.07	0.33	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16.3
MW017	MW17	0902_MW017_210506	6/05/2021	Normal	0.08	*1.90*	7.01	8.91	0.41	0.59	0.15	-	<0.02	<0.1	0.05	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.4
MW017	MW17	0902_MW017_211129	29/11/2021	Normal	0.05	*1.70*	5.60	7.30	0.56	0.59	0.12	-	<0.02	0.2	0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.96
MW017	MW17	0902_MW017_220527	27/05/2022	Normal	0.04	*1.41*	4.37	5.78	0.46	0.55	0.10	-	<0.02	0.2	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.18
MW020	MW20	0902_MW20_060717	6/07/2017	Normal	0.22	*0.89*	13.3	14.2	0.71	1.00	0.22	-	<0.02	<0.1	<0.02	0.30	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16.7
MW020	MW20	0902_MW020_191111	11/11/2019	Normal	0.06	*0.29*	3.15	3.44	0.40	0.31	0.05	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.34
MW020	MW20	0902_MW020_200513	13/05/2020	Normal	0.11	*0.43*	10.0	10.4	0.91	1.04	0.11	-	<0.02	<0.1	0.12	0.77	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.5
MW020	MW20	0902_MW020_201109	9/11/2020	Normal	0.09	*0.71*	9.05	9.76	0.79	1.13	0.08	-	<0.02	<0.1	0.11	0.87	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.9
MW020	MW20	0902_MW020_210505	5/05/2021	Normal	0.17	*0.42*	7.30	7.72	0.38	0.62	0.14	-	<0.02	<0.1	0.17	0.86	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.1
MW020	MW20	0902_MW020_211124	24/11/2021	Normal	0.24	*1.02*	14.8	15.8	0.41	0.70	0.19	-	<0.02	<0.1	0.10	0.79	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.3
MW020	MW20	0902_MW020_220527	27/05/2022	Normal	0.03	*0.22*	3.32	3.54	0.44	0.46	0.04	-	<0.02	<0.1	0.03	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.66
MW021	MW21	0902_MW21_060717	6/07/2017	Normal	0.49	*7.16*	8.01	15.2	0.34	0.53	0.28	-	<0.02	<0.1	0.15	0.63	0.21	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.8
MW021	MW21	0902_MW021_191111	11/11/2019	Normal	0.42	*5.83*	4.48	10.3	0.16	0.19	0.15	-	<0.02	<0.1	0.18	0.54	0.14	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.1
MW021	MW21	0902_MW021_200513	13/05/2020	Normal	0.46	*4.83*	4.91	9.74	0.21	0.26	0.19	-	<0.02	0.2	0.37	0.95	0.23	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.6
MW021	MW21	0902_MW021_201109	9/11/2020	Normal	0.55	*6.38*	4.16	10.5	0.15	0.27	0.23	-	<0.02	0.1	0.16	0.74	0.23	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.0
MW021	MW21	0902_MW021_210505	5/05/2021	Normal	0.31	*3.08*	2.43	5.51	0.20	0.13	0.11	-	<0.02	0.1	0.15	0.37	0.09	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.02
MW021	MW21	0902_QC206_211124	24/11/2021	Interlab_D	0.18	*2.0*	1.3	3.3	0.05	0.07	0.06	-	<0.02	0.06	0.09	0.25	0.07	0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.05	<0.02	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.05	<0.1	<0.02	<0.5	4.2
MW021	MW21	0902_MW021_211124	24/11/2021	Normal	0.21	*2.76*	1.57	4.33	0.06	0.07	0.05	-	<0.02	<0.1	0.12	0.41	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.34
MW021	MW21	0902_MW021_220527	27/05/2022	Normal	0.27	*3.64*	2.15	5.79	0.09	0.14	0.10	-	<0.02	0.1	0.15	0.36	0.12	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.15
MW022	MW22	0902_QC202_060717	6/07/2017	Interlab_D	0.07	*3.5*	1.8	5.3	0.45	0.52	0.12	-	<0.02	<0.2	<0.02	0.24	0.02	0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.04	0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
MW022	MW22	0902_MW22_060717	6/07/2017	Normal	0.10	*4.00*	3.05	7.05	0.35	0.44	0.12	-	<0.02	<0.1	<0.02	0.24	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.41
MW022	MW22	0902_MW022_191111	11/11/2019	Normal	0.91	*29.4*	10.6	40.0	1.45	1.12	0.74	-	<0.02	0.6	1.22	2.53	0.46	0.40	0.17	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.21	0.11	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	50.0
MW022	MW22	0902_MW022_200513	13/05/2020	Normal	1.10	*18.3*	8.40	26.7	1.17	0.92	0.60	-	0.04	0.6	1.20	2.96	0.66	0.53	0.22	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.49	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	37.2
MW022	MW22	0902_QC104_200513	13/05/2020	Field_D	1.00	*16.8*	7.44	24.2	1.08	0.86	0.55	-	0.03	0.5	1.08	2.69	0.56	0.48	0.20	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.41	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	33.7
MW022	MW22	0902_MW022_201109	9/11/2020	Normal	0.54	*13.0*	5.40	18.4	1.06	1.01	0.55	-	0.03	0.4	0.56	2.00	0.35	0.19	0.11	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.13	0.07	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	25.4
MW022	MW22	0902_MW022_210505	5/05/2021	Normal	0.69	*8.91*	8.06	17.0	0.88	0.90	0.47	-	<0.02	0.4	0.68	1.87	0.38	0.14	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.14	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	23.6
MW022	MW22	0902_MW022_211122	22/11/2021	Normal	0.37	*5.60*	5.08	10.7	0.66	0.61	0.33	-	<0.02	0.2	0.24	0.94	0.18	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.3
MW022	MW22	0902_MW022_220530	30/05/2022	Normal	0.06	*1.67*	2.06	3.73	0.23	0.29	0.08	-	<0.02	<0.1	0.05	0.23	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.71
MW023	MW23	0902_MW23_060717	6/07/2017	Normal	<0.01	<0.01	0.05	0.05	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW023	MW23	0902_QC102_060717	6/07/2017	Field_D	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW023	MW23	0902_MW023_191111	11/11/2019	Normal	<0.01	*0.14*	0.05	0.19	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
MW023	MW23	0902_MW023_200513	13/05/2020	Normal	0.02	*0.49*	0.17	0.66	0.03	0.02	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.78
MW023	MW23	0902_MW023_201109	9/11/2020	Normal	<0.01	*0.25*	0.09	0.34	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.36
MW023	MW23	0902_MW023_210505	5/05/2021	Normal	<0.01	*0.18*	0.09	0.27	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29
MW023	MW23	0902_QC200_211122	22/11/2021	Interlab_D	<0.01	*0.13*	0.07	0.20	0.01	<0.01	<0.01	-	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.05	<0.1	<0.02	<0.5	0.21
MW023	MW23	0902_MW023_211122	22/11/2021	Normal	<0.01	*0.11*	0.06	0.17	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
MW023	MW23	0902_MW023_220527	27/05/2022	Normal	<0.01	*0.02*	0.05	0.07	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09
MW024	MW24	0902_MW24_100717	10/07/2017	Normal	<0.01	*0.37*	0.96	1.33	0.73	0.54	<0.02	-	<0.02	<0.1	<0.02	0.28	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.88
MW024	MW24	0902_MW024_191114	14/11/2019	Normal	<0.01	*0.02*	0.03	0.05	0.03	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
MW024	MW24	0902_MW024_200511	11/05/2020	Normal	<0.01	<0.01	0.04	0.04	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW024	MW24	0902_MW024_201110	10/11/2020	Normal	<0.01	*0.01*	0.05	0.06	0.03	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW024	MW24	0902_MW024_210503	3/05/2021	Normal	<0.01	*0.07*	0.27	0.34	0.15	0.10	<0.02	-	<0.02	<0.1	0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.70
MW024	MW24	0902_MW024_211123	23/11/2021	Normal	<0.01	*0.06*	0.28	0.34	0.30	0.14	<0.02	-	<0.02	<0.1	0.04	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.00
MW024	MW24	0902_MW024_220525	25/05/2022	Normal	<0.01	*0.12*	0.36	0.48	0.22	0.17	<0.02	-	<0.02	<0.1	0.03	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.02

AECOM

Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Alternative Name	Field ID	Date	Sample Type																														
MW025	MW25	0902_MW25_050717	5/07/2017	Normal	<0.01	<0.01	0.07	0.07	0.02	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW025	MW25	0902-MW025_191113	13/11/2019	Normal	<0.01	<0.01	0.05	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW025	MW25	0902_MW025_200512	12/05/2020	Normal	<0.01	*0.03*	0.05	0.08	0.03	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
MW025	MW25	0902_MW025_201111	11/11/2020	Normal	<0.01	*0.01*	0.03	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW025	MW25	0902_MW025_210504	4/05/2021	Normal	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW025	MW25	0902_MW025_211122	22/11/2021	Normal	<0.01	*0.02*	0.03	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW025	MW25	0902_MW025_220524	24/05/2022	Normal	<0.01	<0.01	0.05	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW026	MW26	0902_MW26_050717	5/07/2017	Normal	0.39	*1.23*	12.7	13.9	1.02	1.31	0.38	-	<0.02	<0.1	0.14	0.84	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.2
MW026	MW26	0902-MW026_191113	13/11/2019	Normal	0.12	*0.41*	2.44	2.85	0.28	0.24	0.11	-	<0.02	<0.1	0.08	0.38	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.12
MW026	MW26	0902_MW026_200511	11/05/2020	Normal	0.10	*0.37*	2.21	2.58	0.22	0.34	0.09	-	<0.02	<0.1	0.06	0.30	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.74
MW026	MW26	0902_MW026_201111	11/11/2020	Normal	0.03	*0.18*	0.82	1.00	0.10	0.11	0.03	-	<0.02	<0.1	0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.40
MW026	MW26	0902_MW026_210504	4/05/2021	Normal	0.15	*0.48*	3.16	3.64	0.42	0.40	0.14	-	<0.02	<0.1	0.09	0.46	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.38
MW026	MW26	0902_MW026_211122	22/11/2021	Normal	0.18	*0.74*	3.84	4.58	0.78	0.60	0.15	-	<0.02	<0.1	0.16	0.73	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.29
MW026	MW26	0902_MW026_220524	24/05/2022	Normal	0.21	*1.13*	4.82	5.95	0.61	0.80	0.24	-	<0.02	<0.1	0.14	0.60	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.67
MW027	MW27	0902_MW27_100717	10/07/2017	Normal	<0.01	*0.08*	0.48	0.56	0.11	0.10	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.82
MW027	MW27	0902-MW027_191113	13/11/2019	Normal	0.02	*0.18*	0.92	1.10	0.19	0.17	0.02	-	<0.02	<0.1	0.02	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.65
MW027	MW27	0902_MW027_200511	11/05/2020	Normal	0.02	*0.19*	0.95	1.14	0.19	0.23	<0.02	-	<0.02	<0.1	<0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.69
MW027	MW27	0902_MW027_201110	10/11/2020	Normal	0.02	*0.22*	0.77	0.99	0.18	0.21	<0.02	-	<0.02	<0.1	0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.51
MW027	MW27	0902_QC101_201110	10/11/2020	Field_D	0.02	*0.24*	0.87	1.11	0.19	0.20	<0.02	-	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.61
MW027	MW27	0902_MW027_210503	3/05/2021	Normal	0.03	*0.31*	0.98	1.29	0.19	0.18	0.03	-	<0.02	<0.1	0.03	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.87
MW027	MW27	0902_MW027_211123	23/11/2021	Normal	0.02	*0.31*	0.97	1.28	0.23	0.17	0.02	-	<0.02	<0.1	0.03	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.92
MW027	MW27	0902_MW027_220525	25/05/2022	Normal	0.02	*0.49*	1.24	1.73	0.23	0.26	0.03	-	<0.02	<0.1	0.03	0.17	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.49
MW027	MW27	0902_QC103_220525	25/05/2022	Field_D	0.03	*0.54*	1.60	2.14	0.30	0.34	0.04	-	<0.02	<0.1	0.04	0.19	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.11
MW028	MW28	0902_MW28_100717	10/07/2017	Normal	0.10	*0.03*	8.70	8.73	4.32	3.53	<0.02	-	<0.02	0.6	0.86	4.38	0.70	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	23.2
MW028	MW28	0902-MW028_191113	13/11/2019	Normal	0.01	*0.24*	0.10	0.34	0.12	0.03	<0.02	-	<0.02	<0.1	0.04	0.30	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.28	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.14
MW028	MW28	0902_MW028_200511	11/05/2020	Normal	0.10	*0.04*	9.46	9.50	3.52	4.13	<0.02	-	<0.02	0.6	1.00	5.91	0.67	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	25.4
MW028	MW28	0902_MW028_201110	10/11/2020	Normal	0.07	*0.04*	6.49	6.53	2.45	2.57	<0.02	-	<0.02	0.6	0.86	3.57	0.56	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.2
MW028	MW28	0902_MW028_210503	3/05/2021	Normal	0.16	*0.04*	12.1	12.1	3.79	4.20	<0.02	-	<0.02	0.7	1.31	6.08	0.86	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	29.2
MW028	MW28	0902_MW028_211123	23/11/2021	Normal	0.07	*0.12*	4.31	4.43	1.70	1.28	<0.02	-	<0.02	0.2	0.43	2.18	0.26	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.6
MW028	MW28	0902_MW028_220525	25/05/2022	Normal	0.14	*0.09*	9.73	9.82	2.12	2.84	0.03	-	<0.02	0.4	0.47	2.87	0.54	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.2
MW030	MW30	BH8-8	5/11/2013	Normal	<0.02	*0.08*	-	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW030	MW30	0902_MW30_030717	3/07/2017	Normal	0.18	*1.21*	3.82	5.03	0.52	0.36	0.10	-	<0.02	<0.1	0.06	0.34	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.66
MW030	MW30	0902_MW030_191114	14/11/2019	Normal	0.17	*1.06*	2.06	3.12	0.32	0.32	0.07	-	<0.02	<0.1	0.06	0.32	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.44
MW030	MW30	0902_QC201_191114	14/11/2019	Interlab_D	0.11	*0.86*	1.7	2.56	0.23	0.21	0.043	<0.01	<0.01	0.13	0.048	0.24	0.043	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.02	<0.01	<0.05	<0.01	-
MW030	MW30	0902_MW030_200513	13/05/2020	Normal	0.19	*1.27*	2.22	3.49	0.35	0.31	0.09	-	<0.02	<0.1	0.07	0.35	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.92
MW030	MW30	0902_QC202_200513	13/05/2020	Interlab_D	0.12	*0.83*	1.6	2.43	0.28	0.26	0.048	<0.01	<0.01	0.084	0.053	0.24	0.053	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW030	MW30	0902_MW030_201111	11/11/2020	Normal	0.20	*1.62*	2.50	4.12	0.36	0.49	0.12	-	<0.02	0.1	0.09	0.42	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.99
MW030	MW30	0902_QC102_201111	11/11/2020	Field_D	0.19	*1.47*	2.42	3.89	0.34	0.49	0.10	-	<0.02	0.1	0.08	0.41	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.68
MW030	MW30	0902_MW030_210503	3/05/2021	Normal	0.11	*1.07*	1.84	2.91	0.28	0.27	0.07	-	<0.02	<0.10	0.06	0.30	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.06
MW030	MW30	0902_QC205_211123	23/11/2021	Interlab_D	0.09	*0.69*	1.3	2.0	0.20	0.20	0.04	-	<0.02	0.04	0.04	0.20	0.04	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	2.8
MW030	MW30	0902_MW030_211123	23/11/2021	Normal	0.12	*0.94*	1.57	2.51	0.28	0.21	0.05	-	<0.02	<0.1	0.05	0.30	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.57
MW030	MW30	0902_MW030_220526	26/05/2022	Normal	0.07	*0.39*	1.03	1.42	0.17	0.18	0.03	-	<0.02	<0.1	0.02	0.16	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.09
MW032	MW32	0902_MW32_040717	4/07/2017	Normal	0.50	*5.98*	25.4	31.4	4.09	4.67	0.64	-	<0.02	<0.1	0.53	3.10	0.45	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	45.4
MW032	MW32	MW32_180619	18/06/2019	Normal	0.39	*4.70*	13.6	18.3	2.04	2.68	0.56	-	<0.02	0.3	0.53	3.15	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	28.2
MW032	MW32	0902_MW032_191128	28/11/2019	Normal	0.51	*4.18*	15.6	19.8	2.88	3.73	0.67	-	<0.02	0.3	0.61	4.24	0.32	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	33.0
MW032	MW32	0902_MW032_200512	11/05/2020	Normal	0.43	*5.97*	15.2	21.2	2.20	4.34	0.71	-	<0.02	1.0	0.52	3.28	0.31	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.0
MW032	MW32	0902_MW032_201111	11/11/2020	Normal	0.28	*4.18*	9.14	13.3	1.46	1.78	0.53	-	<0.02	1.0	0.36	1.96	0.20	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	20.9
MW032	MW32	0902_MW032_210505	5/05/2021	Normal	0.20	*0.34*	5.35	5.69	1.10	1.05	0.18	-	<0.02	<0.1	0.23	1.26	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.88
MW032	MW32	0902_MW032_211124	24/11/2021	Normal	0.39	*4.20*	13.7	17.9	2.51	2.42	0.51	-	<0.02	1.0	0.51	3.56	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	29.1
MW032	MW32	0902_MW032_220524	24/05/2022	Normal	0.30	*2.99*	9.51	12.5	1.30	1.92	0.37	-	<0.02	0.5	0.21	1.54	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.8
MW033	MW33	0902_MW33_040717	4/07/2017	Normal	0.04	*0.07*	4.77	4.84	0.55	0.65	0.02	-	<0.02	<0.1	0.10	0.45	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.73

AECOM

Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Alternative Name	Field ID	Date	Sample Type																														
MW033	MW33	MW33_180619	18/06/2019	Normal	0.01	*0.05*	1.44	1.49	0.15	0.22	<0.02	-	<0.02	<0.1	0.06	0.31	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.26
MW033	MW33	0902_MW033_191128	28/11/2019	Normal	0.01	*0.07*	0.52	0.59	0.04	0.05	<0.02	-	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.78
MW033	MW33	0902_MW033_200512	11/05/2020	Normal	0.01	*0.14*	0.45	0.59	0.04	0.05	<0.02	-	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.78
MW033	MW33	0902_MW033_201111	11/11/2020	Normal	<0.01	*0.11*	0.10	0.21	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.21
MW033	MW33	0902_MW033_210505	5/05/2021	Normal	0.36	*3.12*	14.2	17.3	2.05	2.66	0.57	-	<0.02	1.1	0.54	2.91	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	27.8
MW033	MW33	0902_MW033_211124	24/11/2021	Normal	<0.01	*0.02*	0.10	0.12	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
MW033	MW33	0902_MW033_220524	24/05/2022	Normal	0.04	*0.26*	0.03	0.29	<0.02	<0.02	<0.02	-	<0.02	<0.1	0.08	0.07	0.06	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56
MW034	MW34	0902_MW34_040717	4/07/2017	Normal	0.22	*0.50*	7.58	8.08	1.47	1.57	0.22	-	<0.02	<0.1	0.18	1.06	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.0
MW034	MW34	MW34_180619	18/06/2019	Normal	0.12	*0.26*	3.56	3.82	0.67	0.78	0.13	-	<0.02	<0.1	0.16	0.97	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.77
MW034	MW34	QC104_180619	18/06/2019	Field_D	0.14	*0.27*	3.80	4.07	0.70	0.81	0.13	-	<0.02	<0.1	0.17	0.90	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.03
MW034	MW34	0902_MW034_191128	28/11/2019	Normal	0.13	*0.29*	3.56	3.85	0.64	0.70	0.12	-	<0.02	<0.1	0.15	0.81	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.50
MW034	MW34	0902_QC112_191128	28/11/2019	Field_D	0.13	*0.28*	3.77	4.05	0.66	0.73	0.12	-	<0.02	<0.1	0.14	0.83	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.76
MW034	MW34	0902_MW034_200512	11/05/2020	Normal	0.15	*0.27*	4.42	4.69	0.74	1.01	0.12	-	<0.02	0.1	0.16	0.92	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.02
MW034	MW34	0902_MW034_201111	11/11/2020	Normal	0.28	*1.64*	7.04	8.68	1.00	1.12	0.29	-	<0.02	0.4	0.28	1.53	0.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.8
MW034	MW34	0902_MW034_210505	5/05/2021	Normal	0.02	*0.08*	0.95	1.03	0.09	0.09	<0.02	-	<0.02	<0.1	0.06	0.14	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.45
MW034	MW34	0902_MW034_211124	24/11/2021	Normal	<0.01	*0.09*	0.18	0.27	0.05	0.03	<0.02	-	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.41
MW034	MW34	0902_MW034_220524	24/05/2022	Normal	0.03	*0.16*	0.63	0.79	0.12	0.14	0.03	-	<0.02	<0.1	0.03	0.13	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.30
MW036	MW36	0902_MW36_060717	6/07/2017	Normal	<0.01	*0.06*	0.86	0.92	0.25	0.23	<0.02	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.48
MW036	MW36	0902_MW036_191111	11/11/2019	Normal	<0.01	*0.03*	0.45	0.48	0.12	0.09	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.74
MW036	MW36	0902_MW036_200513	13/05/2020	Normal	0.01	*0.05*	0.69	0.74	0.20	0.18	<0.02	-	<0.02	<0.1	0.03	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.28
MW036	MW36	0902_MW036_201109	9/11/2020	Normal	<0.01	*0.04*	0.56	0.60	0.15	0.13	<0.02	-	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.97
MW036	MW36	0902_MW036_210507	7/05/2021	Normal	0.01	*0.06*	0.80	0.86	0.20	0.18	<0.02	-	<0.02	<0.1	0.04	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.43
MW036	MW36	0902_MW036_211122	22/11/2021	Normal	0.01	*0.04*	0.60	0.64	0.27	0.14	<0.02	-	<0.02	<0.1	0.04	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.24
MW036	MW36	0902_MW036_220527	27/05/2022	Normal	0.02	*0.08*	0.97	1.05	0.20	0.21	0.02	-	<0.02	<0.1	0.03	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.67
MW036	MW36	0902_QC108_220527	27/05/2022	Field_D	0.02	*0.13*	1.45	1.58	0.26	0.29	0.03	-	<0.02	<0.1	0.05	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.46
MW040	MW40	0902_MW40_100717	10/07/2017	Normal	9.46	*872*	97.3	969	10.5	8.60	7.69	-	2.56	<0.5	5.85	24.1	3.05	0.61	0.27	<0.10	<0.10	<0.10	<0.25	<0.10	0.62	1.21	<0.10	<0.10	<0.25	<0.10	<0.25	<0.25	<0.10	<0.25	1,040
MW040	MW40	0902_QC207_170807	7/08/2017	Interlab_D	9.8	*570*	88	658	8.1	8.1	7.4	-	0.40	3.8	6.2	24	2.8	<0.05	0.1	<0.02	<0.05	<0.1	<0.5	<0.01	0.46	0.60	0.01	0.5	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
MW040	MW40	0902_MW40_170807	7/08/2017	Normal	7.54	*618*	84.0	702	7.02	8.29	2.79	-	0.88	11.8	5.49	20.6	1.46	0.67	0.74	0.05	0.04	<0.02	<0.05	<0.05	0.48	2.02	<0.05	1.17	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	773
MW040	MW40	0902-MW040_191113	13/11/2019	Normal	3.13	*205*	44.2	249	7.65	5.64	3.56	-	1.59	3.7	5.51	15.3	1.46	0.15	0.08	0.05	0.02	<0.02	<0.05	<0.05	0.26	0.40	<0.05	0.40	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	298
MW040	MW40	0902_MW040_200511	11/05/2020	Normal	3.24	*224*	48.6	273	4.72	7.14	6.19	-	3.60	2.0	3.34	13.5	1.46	0.10	0.06	0.05	<0.05	<0.05	<0.12	<0.05	0.20	0.30	<0.05	0.43	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	319
MW040	MW40	0902_QC100_200511	11/05/2020	Field_D	3.13	*216*	42.6	259	4.44	4.60	4.74	-	1.20	1.9	3.07	11.7	1.47	0.14	0.06	0.04	0.02	<0.02	<0.05	<0.05	0.19	0.25	<0.05	0.46	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	296
MW040	MW40	0902_MW040_201110	10/11/2020	Normal	2.09	*157*	32.9	190	5.57	3.95	1.91	-	1.01	2.8	2.77	10.2	0.99	0.13	0.04	0.03	0.02	<0.02	<0.05	<0.05	0.13	0.12	<0.05	0.24	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	222
MW040	MW40	0902_QC100_201110	10/11/2020	Field_D	1.92	*151*	31.3	182	5.16	3.62	1.85	-	0.84	2.7	2.66	9.78	0.85	0.12	0.04	0.03	<0.02	<0.02	<0.05	<0.05	0.10	0.08	<0.05	0.21	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	212
MW040	MW40	0902_MW040_210503	3/05/2021	Normal	1.23	*65.2*	22.8	88.0	2.34	3.24	1.36	-	0.50	0.8	1.30	5.29	0.53	0.07	0.03	0.03	<0.02	<0.02	<0.05	<0.05	0.10	0.06	<0.05	0.22	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	105
MW040	MW40	0902_MW040_211123	23/11/2021	Normal	2.54	*74.7*	41.6	116	6.39	5.61	2.50	-	0.43	1.3	2.60	12.7	1.35	0.07	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.14	0.05	<0.05	0.18	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	152
MW040	MW40	0902_QC103_211123	23/11/2021	Field_D	3.98	*129*	70.4	199	10.1	11.0	5.00	-	0.68	2.0	4.20	19.2	1.97	0.09	0.03	0.03	0.02	<0.02	<0.05	<0.05	0.20	0.07	<0.05	0.31	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	258
MW040	MW40	0902_MW040_220525	25/05/2022	Normal	0.59	*66.5*	13.1	79.6	1.22	1.83	0.99	-	1.15	0.4	0.38	2.04	0.26	0.07	0.04	0.03	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.22	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	88.8
MW041	MW41	0902_MW41_100717	10/07/2017	Normal	<0.01	*0.09*	0.09	0.18	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
MW041	MW41	0902-MW041_191113	13/11/2019	Normal	<0.01	*0.21*	0.08	0.29	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29
MW041	MW41	0902_QC200_191113	13/11/2019	Interlab_D	<0.01	*0.16*	0.064	0.224	0.012	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW041	MW41	0902_MW041_200511	11/05/2020	Normal	<0.01	*0.08*	0.19	0.27	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.32
MW041	MW41	0902_MW041_201110	10/11/2020	Normal	<0.01	*0.04*	0.13	0.17	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
MW041	MW41	0902_MW041_210503	3/05/2021	Normal	<0.01	*0.04*	0.11	0.15	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15
MW041	MW41	0902_QC202_211123	23/11/2021	Interlab_D	<0.01	*0.06*	0.09	0.14	<0.01	<0.01	<0.01	-	<0.02	<0.02	<0.02	0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.15
MW041	MW41	0902_MW041_211123	23/11/2021	Normal	<0.01	*0.05*	0.08	0.13	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
MW041	MW41	0902_QC202_220525	25/05/2022	Interlab_D	<0.01	*0.07*	0.09	0.16	0.01	<0.01	<0.01	-	<0.02	0.04	<0.02	0.03	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.02	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.25
MW041	MW41	0902_MW041_220525	25/05/2022	Normal	<0.01	*0.08*	0.08	0.16	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
MW042	MW42	0902_MW42_100717	10/07/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW042	MW42	0902-MW042_191113	13/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW042	MW42	0902_MW042_200511	11/05/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW042	MW42	0902_MW042_201110	10/11/2020	Normal	<0.01	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04

AECOM

Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Alternative Name	Field ID	Date	Sample Type																														
MW042	MW042	0902_MW042_210503	3/05/2021	Normal	<0.01	*0.16*	0.03	0.19	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
MW042	MW042	0902_MW042_211123	23/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW042	MW042	0902_MW042_220525	25/05/2022	Normal	<0.01	*0.12*	0.01	0.13	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
MW043	MW043	0902_MW43_100717	10/07/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW043	MW043	0902-MW043_191113	13/11/2019	Normal	<0.01	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW043	MW043	0902_MW043_200511	11/05/2020	Normal	<0.01	*0.07*	<0.02	0.07	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW043	MW043	0902_MW043_201110	10/11/2020	Normal	<0.01	*0.12*	<0.02	0.12	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
MW043	MW043	0902_MW043_210503	3/05/2021	Normal	<0.01	*0.06*	<0.02	0.06	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW043	MW043	0902_MW043_211123	23/11/2021	Normal	<0.01	*0.02*	0.01	0.03	0.08	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW043	MW043	0902_MW043_220525	25/05/2022	Normal	<0.01	*0.15*	0.02	0.17	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
MW044	MW044	0902_MW44_060717	6/07/2017	Normal	<0.01	<0.01	0.08	0.08	0.02	0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
MW044	MW044	0902_QC205_210507	7/04/2021	Interlab_D	<0.01	*0.038*	0.038	0.076	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW044	MW044	0902_MW044_210507	7/05/2021	Normal	<0.01	*0.02*	0.04	0.06	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW045	MW045	0902_MW45_060717	6/07/2017	Normal	<0.01	<0.01	0.05	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW045	MW045	0902-MW045_191113	13/11/2019	Normal	<0.01	*0.02*	0.04	0.06	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW045	MW045	0902_MW045_200512	12/05/2020	Normal	<0.01	*0.05*	0.06	0.11	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW045	MW045	0902_MW045_201110	10/11/2020	Normal	<0.01	*0.02*	0.03	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW045	MW045	0902_QC201_201110	10/11/2020	Interlab_D	<0.01	<0.02	0.028	0.028	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW045	MW045	0902_MW045_210507	7/05/2021	Normal	<0.01	*0.12*	0.07	0.19	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
MW046	MW046	0902_MW46_060717	6/07/2017	Normal	<0.01	<0.01	0.04	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW046	MW046	0902-MW046_191113	13/11/2019	Normal	<0.01	*0.02*	0.05	0.07	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW046	MW046	0902_MW046_200512	12/05/2020	Normal	<0.01	*0.04*	0.07	0.11	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW046	MW046	0902_MW046_201110	10/11/2020	Normal	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW046	MW046	0902_MW046_210504	4/05/2021	Normal	<0.01	<0.01	0.04	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW046	MW046	0902_QC201_211122	22/11/2021	Interlab_D	<0.01	<0.01	0.03	0.03	0.01	<0.01	<0.01	-	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	<0.05	0.04
MW046	MW046	0902_MW046_211122	22/11/2021	Normal	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW046	MW046	0902_MW046_220524	24/05/2022	Normal	<0.01	<0.01	0.05	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW047	MW047	0902_MW47_060717	6/07/2017	Normal	0.60	*8.61*	14.0	22.6	4.00	2.71	0.59	-	<0.02	<0.02	<0.1	0.59	1.74	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	33.1
MW047	MW047	0902-MW047_191113	13/11/2019	Normal	0.56	*6.87*	13.8	20.7	2.47	2.70	0.59	-	<0.02	0.2	0.50	2.61	0.32	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	30.6
MW047	MW047	0902_MW047_200511	11/05/2020	Normal	0.47	*6.80*	11.8	18.6	1.97	2.63	0.61	-	<0.02	0.2	0.41	1.91	0.33	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	27.1
MW047	MW047	0902_MW047_201110	10/11/2020	Normal	0.34	*3.93*	7.22	11.2	1.36	2.42	0.39	-	<0.02	0.1	0.31	1.35	0.25	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.7
MW047	MW047	0902_MW047_210503	3/05/2021	Normal	0.37	*3.08*	8.66	11.7	1.55	1.75	0.32	-	<0.02	0.2	0.34	1.44	0.24	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.0
MW047	MW047	0902_MW047_211123	23/11/2021	Normal	0.38	*5.18*	8.85	14.0	1.91	1.64	0.35	-	<0.02	0.1	0.32	1.77	0.22	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	20.7
MW047	MW047	0902_MW047_220525	25/05/2022	Normal	0.03	*0.82*	0.60	1.42	0.10	0.12	0.04	-	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.80
MW048	MW048	0902_MW48_050717	5/07/2017	Normal	<0.01	<0.01	0.20	0.20	0.07	0.08	<0.02	-	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
MW048	MW048	0902-MW048_191113	13/11/2019	Normal	<0.01	<0.01	0.18	0.18	0.05	0.05	<0.02	-	<0.02	<0.1	0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
MW048	MW048	0902_MW048_200511	11/05/2020	Normal	<0.01	*0.01*	0.16	0.17	0.05	0.06	<0.02	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.36
MW048	MW048	0902_MW048_201110	10/11/2020	Normal	<0.01	<0.01	0.09	0.09	0.04	0.05	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23
MW048	MW048	0902_MW048_210503	3/05/2021	Normal	<0.01	<0.01	0.12	0.12	0.06	0.05	<0.02	-	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29
MW048	MW048	0902_MW048_211123	23/11/2021	Normal	<0.01	*0.05*	0.17	0.22	0.10	0.06	<0.02	-	<0.02	<0.1	0.03	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56
MW048	MW048	0902_MW048_220525	25/05/2022	Normal	<0.01	<0.01	0.25	0.25	0.10	0.11	<0.02	-	<0.02	<0.1	0.02	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.62
MW050	MW50	0902_QC104_060717	6/07/2017	Field_D	0.75	*17.4*	7.68	25.1	1.74	1.11	0.48	-	<0.02	<0.1	0.79	1.68	0.24	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.24	0.09	<0.05	0.02	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	32.2
MW050	MW50	0902_MW50_060717	6/07/2017	Normal	0.90	*22.1*	8.86	31.0	1.56	1.25	0.62	-	0.04	0.6	0.69	2.32	0.43	0.04	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.29	0.16	<0.05	0.08	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	40.0
MW050	MW50	0902-MW050_191113	13/11/2019	Normal	0.25	*6.07*	1.97	8.04	0.19	0.18	0.16	-	<0.02	0.1	0.24	0.57	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	0.04	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.94
MW050	MW50	0902_MW050_200515	15/05/2020	Normal	0.60	*9.50*	5.84	15.3	0.85	0.88	0.35	-	0.04	0.3	0.60	1.74	0.32	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.13	0.06	<0.05	0.07	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	21.3
MW050	MW50	0902_QC107_200515	15/05/2020	Field_D	0.40	*6.32*	4.14	10.5	0.50	0.68	0.26	-	<0.02	0.2	0.37	1.13	0.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.3
MW050	MW50	0902_MW050_201110	10/11/2020	Normal	0.36	*8.40*	3.20	11.6	0.47	0.56	0.30	-	0.02	0.2	0.32	1.00	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.19	<0.05	<0.05	0.04	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	15.2
MW050	MW50	0902_MW050_210503	3/05/2021	Normal	0.35	*9.90*	2.95	12.8	0.50	0.42	0.32	-	<0.02	0.2	0.34	0.96	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.15	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16.3
MW050	MW50	0902_QC203_211123	23/11/2021	Interlab_D	0.12	*4.1*	1.2	5.3	0.14	0.13	0.11	-	<0.02	0.08	0.1	0.29	0.05	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.09	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.5	<0.05	6.4
MW050	MW50	0902_MW050_211123	23/11/2021	Normal	0.13	*4.96*	1.30	6.26	0.18	0.14	0.10	-	<0.02	<0.1	0.11	0.39	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.49
MW050	MW50	0902_MW050_220525	25/05/2022	Normal	0.37	*10.2*	5.51	15.7	1.15	1.33	0.42	-	<0.02	0.4	0.32	1.57	0.24	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.15	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	21.7

AECOM

Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Alternative Name	Field ID	Date	Sample Type																														
MW051	MW51	0902_MW51_060717	6/07/2017	Normal	9.69	*167*	267	434	33.6	33.9	14.4	-	<0.02	<0.1	7.88	38.7	5.31	0.09	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	0.10	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	578
MW051	MW51	0902-MW051_191113	13/11/2019	Normal	18.8	*102*	371	473	40.4	51.1	23.2	-	<0.02	8.8	13.9	61.3	8.76	0.10	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	699
MW051	MW51	0902_MW051_200511	11/05/2020	Normal	3.37	*74.4*	71.0	145	6.68	11.8	6.60	-	<0.05	2.1	2.96	11.3	1.33	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	0.09	<0.05	<0.05	0.06	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	192
MW051	MW51	0902_MW051_201110	10/11/2020	Normal	0.87	*37.5*	13.9	51.4	1.48	1.56	0.96	-	0.05	0.7	0.95	2.73	0.44	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	61.2
MW051	MW51	0902_QC200_210503	3/04/2021	Interlab_D	14	*83*	250	333	46	39	11	0.023	<0.01	10	16	68	6.6	0.061	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	0.084	<0.01	<0.01	0.019	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW051	MW51	0902_MW051_210503	3/05/2021	Normal	11.2	*80.0*	287	367	36.7	46.5	22.6	-	0.13	10.7	10.4	85.3	4.20	0.09	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	595
MW051	MW51	0902_MW051_211123	23/11/2021	Normal	*39.4*	*239*	656	895	78.0	63.5	59.2	-	0.10	16.1	22.2	130	13.8	0.15	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.14	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1,320
MW051	MW51	0902_MW051_220525	25/05/2022	Normal	*34.2*	*274*	519	793	48.5	64.2	64.6	-	0.07	12.7	12.3	81.5	11.3	0.13	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1,120
MW052	MW52	0902_MW52_060717	6/07/2017	Normal	0.31	*0.20*	24.9	25.1	16.9	8.99	0.06	-	<0.02	<0.1	3.19	10.8	0.53	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	65.9
MW052	MW52	0902-MW052_191113	13/11/2019	Normal	0.44	*0.22*	42.8	43.0	12.8	11.5	0.13	-	<0.02	2.1	3.89	20.4	1.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	95.5
MW052	MW52	0902_MW052_200511	11/05/2020	Normal	0.40	*0.26*	39.6	39.9	13.4	14.5	0.10	-	<0.02	1.9	3.14	18.7	1.21	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	93.2
MW052	MW52	0902_MW052_201110	10/11/2020	Normal	0.30	*0.19*	23.9	24.1	7.63	7.56	0.08	-	<0.02	1.5	2.21	11.0	0.75	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	55.1
MW052	MW52	0902_MW052_210503	3/05/2021	Normal	0.36	*0.27*	14.2	14.5	5.03	4.54	0.16	-	<0.02	1.8	2.70	4.86	0.90	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.8
MW052	MW52	0902_MW052_211123	23/11/2021	Normal	0.29	*0.33*	21.8	22.1	9.57	5.50	0.12	-	<0.02	1.4	2.20	12.7	0.67	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	54.6
MW052	MW52	0902_MW052_220525	25/05/2022	Normal	0.04	*0.71*	0.82	1.53	0.25	0.24	0.04	-	<0.02	<0.1	0.05	0.32	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.49
MW053	MW53	0902_MW53_030717	3/07/2017	Normal	<0.01	<0.01	0.35	0.35	0.16	0.11	<0.02	-	<0.02	<0.1	0.04	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.74
MW053	MW53	0902_MW053_191114	14/11/2019	Normal	<0.01	*0.04*	0.08	0.12	0.03	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
MW053	MW53	0902_MW053_200513	13/05/2020	Normal	0.09	*0.17*	0.76	0.93	0.12	0.11	0.03	-	<0.02	<0.1	0.08	0.21	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.62
MW053	MW53	0902_MW053_201111	11/11/2020	Normal	0.07	*0.13*	0.67	0.80	0.11	0.11	0.02	-	<0.02	<0.1	0.07	0.15	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.37
MW053	MW53	0902_QC202_201111	11/11/2020	Interlab_D	0.05	*0.083*	0.48	0.563	0.078	0.079	0.012	<0.01	<0.01	<0.05	0.052	0.12	0.036	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW053	MW53	0902_MW053_210503	3/05/2021	Normal	0.07	*0.09*	0.18	0.27	0.09	0.03	<0.02	-	<0.02	0.2	0.24	0.29	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.26
MW053	MW53	0902_MW053_211124	24/11/2021	Normal	0.04	*0.08*	0.12	0.20	0.03	<0.02	<0.02	-	<0.02	<0.1	0.08	0.14	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.52
MW053	MW53	0902_MW053_220526	26/05/2022	Normal	0.13	*0.12*	0.35	0.47	0.05	0.04	<0.02	-	<0.02	0.2	0.09	0.20	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.28
MW054	MW54	0902_MW54_300617	30/06/2017	Normal	<0.01	<0.01	0.09	0.09	0.06	0.03	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
MW054	MW54	0902_MW054_191114	14/11/2019	Normal	<0.01	<0.01	0.15	0.15	0.10	0.06	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.31
MW054	MW54	0902_MW054_200513	13/05/2020	Normal	<0.01	*0.02*	0.29	0.31	0.38	0.08	<0.02	-	<0.02	<0.1	0.05	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.97
MW054	MW54	0902_MW054_201111	11/11/2020	Normal	<0.01	<0.01	0.24	0.24	0.13	0.06	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.48
MW054	MW54	0902_MW054_210504	4/05/2021	Normal	<0.01	<0.01	0.17	0.17	0.11	0.06	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.37
MW054	MW54	0902_MW054_211124	24/11/2021	Normal	<0.01	*0.02*	0.16	0.18	0.14	0.04	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.36
MW054	MW54	0902_MW054_220524	24/05/2022	Normal	<0.01	<0.01	0.22	0.22	0.09	0.06	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.41
MW054	MW54	0902_QC100_220524	24/05/2022	Field_D	<0.01	<0.01	0.25	0.25	0.10	0.07	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.44
MW056	MW56	BH8-17	4/11/2013	Normal	<0.02	<0.02	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	MW56	0902_QC201_030717	3/07/2017	Interlab_D	<0.01	<0.01	0.03	0.03	<0.01	<0.01	<0.01	-	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
MW056	MW56	0902_MW56_030717	3/07/2017	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW056	MW56	0902_MW056_191114	14/11/2019	Normal	<0.01	*0.01*	0.02	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW056	MW56	0902_MW056_200513	13/05/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW056	MW56	0902_QC102_200513	13/05/2020	Field_D	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW056	MW56	0902_MW056_201113	13/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW056	MW56	0902_MW056_210507	7/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW056	MW56	0902_MW056_211124	24/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW056	MW56	0902_QC106_211124	24/11/2021	Field_D	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW056	MW56	0902_MW056_220525	25/05/2022	Normal	<0.01	*0.02*	0.01	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW057	MW57	BH8-18	4/11/2013	Normal	<0.02	<0.02	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	MW57	0902_MW57_030717	3/07/2017	Normal	<0.05	*0.13*	0.90	1.03	0.12	0.10	<0.05	-	<0.05	<0.2	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	1.33
MW057	MW57	0902_MW057_191114	14/11/2019	Normal	0.03	*0.09*	0.70	0.79	0.11	0.09	<0.02	-	<0.02	<0.1	0.03	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.15
MW057	MW57	0902_MW057_200513	13/05/2020	Normal	0.06	*0.08*	0.81	0.89	0.13	0.08	<0.02	-	<0.02	<0.1	0.06	0.12	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.37
MW057	MW57	0902_QC103_200513	13/05/2020	Field_D	0.06	*0.08*	0.77	0.85	0.13	0.07	<0.02	-	<0.02	<0.1	0.06	0.12	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.32
MW057	MW57	0902_MW057_201111	11/11/2020	Normal	0.06	*0.09*	0.69	0.78	0.10	0.05	<0.02	-	<0.02	<0.1	0.05	0.07	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.13
MW057	MW57	0902_MW057_210504	4/05/2021	Normal	0.05	*0.12*	0.72	0.84	0.19	0.08	<0.02	-	<0.02	0.1	0.06	0.11	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.45
MW057	MW57	0902_MW057_211124	24/11/2021	Normal	0.06	*0.13*	0.73	0.86	0.12	0.06	<0.02	-	<0.02	<0.1	0.06	0.17	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.37
MW057	MW57	0902_MW057_220531	31/05/2022	Normal	0.07	*0.32*	0.66	0.98	0.10	0.08	0.02	-	<0.02	0.1	0.05	0.13	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.57

AECOM

Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Alternative Name	Field ID	Date	Sample Type																														
MW058	MW58	BH8-19	4/11/2013	Normal	<0.02	<0.02	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	MW58	0902_MW58_300617	30/06/2017	Normal	0.02	<0.01	1.86	1.86	1.66	0.92	<0.02	-	<0.02	<0.1	0.37	1.30	0.21	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.34
MW058	MW58	0902_MW058_191114	14/11/2019	Normal	0.06	*0.12*	3.81	3.93	2.78	2.31	<0.02	-	<0.02	0.4	0.61	3.52	0.31	0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.0
MW058	MW58	0902_QC202_191114	14/11/2019	Interlab_D	0.80	<0.02	9.9	9.9	2.5	2.0	<0.01	<0.01	<0.01	0.56	0.79	3.6	0.74	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW058	MW58	0902_MW058_200513	13/05/2020	Normal	0.90	<0.01	9.34	9.34	2.67	2.29	0.06	-	<0.02	0.4	0.72	4.00	0.79	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	21.2
MW058	MW58	0902_MW058_201111	11/11/2020	Normal	0.42	*0.02*	6.03	6.05	1.60	1.17	0.02	-	<0.02	0.2	0.42	1.87	0.37	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.1
MW058	MW58	0902_MW058_210504	4/05/2021	Normal	0.39	*0.13*	2.85	2.98	1.34	1.23	0.06	-	<0.02	0.2	0.39	2.13	0.40	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.12
MW058	MW58	0902_MW058_211124	24/11/2021	Normal	0.59	*0.05*	5.63	5.68	1.94	1.23	0.05	-	<0.02	0.3	0.46	3.03	0.42	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.7
MW058	MW58	0902_MW058_220809	9/08/2022	Normal	0.65	*0.05*	5.38	5.43	2.21	2.05	0.11	-	<0.02	0.4	0.69	3.51	0.59	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	15.6
MW059	MW59	BH8-26	5/11/2013	Normal	<0.02	<0.02	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	MW59	0902_MW59_030717	3/07/2017	Normal	<0.01	*0.01*	1.96	1.97	2.20	1.21	<0.02	-	<0.02	<0.1	0.34	1.17	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.98
MW059	MW59	0902_QC101_030717	3/07/2017	Field_D	<0.01	*0.01*	1.96	1.97	2.22	1.20	<0.02	-	<0.02	<0.1	0.33	1.18	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.99
MW059	MW59	0902_MW059_191114	14/11/2019	Normal	0.06	*0.11*	3.91	4.02	2.72	2.40	<0.02	-	<0.02	0.3	0.63	3.54	0.32	0.03	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.0
MW059	MW59	0902_QC105_191114	14/11/2019	Field_D	0.07	*0.16*	5.04	5.20	3.68	2.89	<0.02	-	<0.02	0.2	0.75	4.54	0.40	0.03	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.8
MW059	MW59	0902_MW059_200515	15/05/2020	Normal	<0.01	<0.01	0.07	0.07	0.04	0.03	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
MW059	MW59	0902_MW059_201113	13/11/2020	Normal	0.02	*0.01*	3.34	3.35	2.09	2.02	<0.02	-	<0.02	0.3	0.50	2.98	0.32	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.6
MW059	MW59	0902_MW059_210507	7/05/2021	Normal	0.03	*0.07*	3.92	3.99	2.96	2.62	<0.02	-	<0.02	0.5	0.91	3.98	0.52	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	15.5
MW059	MW59	0902_MW059_211129	29/11/2021	Normal	0.02	*0.08*	2.68	2.76	3.07	1.77	<0.02	-	<0.02	0.4	0.61	3.28	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.2
MW059	MW59	0902_MW059_220531	31/05/2022	Normal	0.03	*0.04*	3.81	3.85	2.72	2.38	<0.02	-	<0.02	0.4	0.43	2.92	0.37	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.1
MW060	MW60	0902_MW60_050717	5/07/2017	Normal	0.10	*0.73*	2.98	3.71	0.24	0.36	0.09	-	<0.02	<0.1	<0.02	0.25	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.81
MW060	MW60	0902_MW060_191114	14/11/2019	Normal	0.09	*0.44*	1.94	2.38	0.17	0.23	0.07	-	<0.02	<0.1	0.06	0.31	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.35
MW060	MW60	0902_MW060_200512	12/05/2020	Normal	0.10	*0.52*	2.20	2.72	0.19	0.23	0.09	-	<0.02	<0.1	0.06	0.33	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.77
MW060	MW60	0902_MW060_201111	11/11/2020	Normal	0.07	*0.44*	1.65	2.09	0.14	0.23	0.07	-	<0.02	<0.1	0.05	0.26	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.95
MW060	MW60	0902_QC201_210504	4/04/2021	Interlab_D	0.075	*0.4*	1.9	2.3	0.18	0.21	0.045	<0.01	<0.01	<0.05	0.059	0.27	0.039	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW060	MW60	0902_MW060_210504	4/05/2021	Normal	0.10	*0.54*	2.04	2.58	0.19	0.25	0.08	-	<0.02	<0.1	0.07	0.34	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.66
MW060	MW60	0902_MW060_211124	24/11/2021	Normal	0.05	*0.23*	0.45	0.68	0.05	0.04	0.02	-	<0.02	<0.1	<0.02	0.09	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.95
MW060	MW60	0902_MW060_220525	25/05/2022	Normal	0.08	*0.39*	1.58	1.97	0.16	0.20	0.06	-	<0.02	<0.1	0.04	0.24	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.79
MW061	MW61	0902_MW61_050717	5/07/2017	Normal	0.10	*1.02*	1.43	2.45	0.12	0.12	0.04	-	<0.02	<0.1	<0.02	0.13	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.05
MW061	MW61	0902_MW061_191114	14/11/2019	Normal	0.15	*1.30*	2.31	3.61	0.24	0.26	0.11	-	<0.02	<0.1	0.10	0.40	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.93
MW061	MW61	0902_MW061_200512	12/05/2020	Normal	0.06	*0.61*	0.86	1.47	0.15	0.06	0.04	-	<0.02	<0.1	0.10	0.18	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.10
MW061	MW61	0902_MW061_201111	11/11/2020	Normal	0.03	*0.38*	0.32	0.70	0.04	0.03	<0.02	-	<0.02	<0.1	0.04	0.07	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.94
MW061	MW61	0902_MW061_210504	4/05/2021	Normal	0.04	*0.71*	0.37	1.08	0.06	0.04	<0.02	-	<0.02	<0.1	0.23	0.10	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.59
MW061	MW61	0902_MW061_211124	24/11/2021	Normal	0.04	*0.27*	0.41	0.68	0.07	0.04	<0.02	-	<0.02	<0.1	0.08	0.14	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.08
MW061	MW61	0902_MW061_220525	25/05/2022	Normal	0.05	*0.34*	0.37	0.71	0.06	0.04	<0.02	-	<0.02	<0.1	0.06	0.11	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.07
MW062	MW62	0902_QC203_050717	5/07/2017	Interlab_D	<0.01	*0.08*	0.14	0.22	0.03	0.05	<0.01	-	<0.02	<0.02	<0.02	0.03	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
MW062	MW62	0902_MW62_050717	5/07/2017	Normal	0.01	*0.51*	0.31	0.82	0.02	0.03	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.92
MW062	MW62	0902_MW062_191114	14/11/2019	Normal	<0.05	*0.28*	0.20	0.48	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	0.48
MW062	MW62	0902_MW062_200512	12/05/2020	Normal	0.01	*0.64*	0.31	0.95	<0.02	0.02	0.02	-	<0.02	<0.1	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.08
MW062	MW62	0902_MW062_201111	11/11/2020	Normal	0.01	*0.43*	0.23	0.66	<0.02	<0.02	<0.02	-	<0.02	<0.1	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.76
MW062	MW62	0902_MW062_210504	4/05/2021	Normal	<0.01	*0.30*	0.14	0.44	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.44
MW062	MW62	0902_MW062_211122	22/11/2021	Normal	<0.01	*0.28*	0.14	0.42	<0.02	<0.02	<0.02	-	<0.02	<0.1	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.46
MW062	MW62	0902_MW062_220527	27/05/2022	Normal	<0.01	*0.33*	0.07	0.40	<0.02	<0.02	<0.02	-	<0.02	<0.1	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.49
MW063	MW63	0902_QC204_050717	5/07/2017	Interlab_D	0.65	*1.6*	19	20.6	5.8	6.0	1.6	-	<0.02	<0.2	0.31	3.4	0.24	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.02	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
MW063	MW63	0902_MW63_050717	5/07/2017	Normal	1.08	*1.47*	20.0	21.5	4.92	2.96	1.16	-	<0.02	<0.1	0.94	3.33	0.33	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	36.2
MW063	MW63	0902_MW063_191114	14/11/2019	Normal	0.58	*1.51*	9.40	10.9	1.60	1.60	0.57	-	<0.02	0.2	0.42	2.26	0.26	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.4
MW063	MW63	0902_MW063_200512	12/05/2020	Normal	0.63	*1.37*	8.22	9.59	1.78	1.68	0.74	-	<0.02	0.3	0.48	2.49	0.33	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.0
MW063	MW63	0902_MW063_201111	11/11/2020	Normal	0.39	*1.68*	7.31	8.99	1.12	1.22	0.48	-	<0.02	0.2	0.32	1.63	0.21	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.6
MW063	MW63	0902_MW063_210504	4/05/2021	Normal	0.54	*2.76*	6.74	9.50	1.95	1.83	0.83	-	<0.02	0.3	0.46	2.33	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.0
MW063	MW63	0902_MW063_211122	22/11/2021	Normal	0.05	*0.22*	1.06	1.28	0.36	0.24	0.02	-	<0.02	<0.1	0.17	0.60	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.80
MW063	MW63	0902_MW063_220527	27/05/2022	Normal	0.46	*2.49*	7.26	9.75	1.43	1.54	0.41	-	<0.02	0.3	0.36	2.19	0.35	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16.8
MW064	MW64	0902_MW64_040717	4/07/2017	Normal	<0.01	*0.22*	0.76	0.98	0.16	0.12	0.02	-	<0.02	2.7	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.98

AECOM

Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Alternative Name	Field ID	Date	Sample Type																														
MW064	MW64	0902-MW064_191113	13/11/2019	Normal	0.02	*0.27*	0.89	1.16	0.10	0.10	0.04	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.45
MW064	MW64	0902_MW064_200511	11/05/2020	Normal	0.02	*0.30*	0.84	1.14	0.09	0.12	0.03	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.43
MW064	MW64	0902_MW064_201110	10/11/2020	Normal	0.01	*0.24*	0.68	0.92	0.07	0.09	0.03	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.14
MW064	MW64	0902_MW064_210504	4/05/2021	Normal	0.02	*0.34*	0.94	1.28	0.15	0.13	0.04	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.66
MW064	MW64	0902_MW064_211122	22/11/2021	Normal	0.01	*0.14*	0.38	0.52	0.23	0.06	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.85
MW064	MW64	0902_QC200_220524	24/05/2022	Interlab_D	0.02	*0.27*	0.59	0.86	0.08	0.09	0.03	-	<0.02	0.02	<0.02	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	1.1
MW064	MW64	0902_MW064_220524	24/05/2022	Normal	0.02	*0.30*	0.71	1.01	0.08	0.10	0.04	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.27
MW065	MW65	0902_MW65_040717	4/07/2017	Normal	<0.01	*0.05*	0.42	0.47	0.06	0.06	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.59
MW065	MW65	0902-MW065_191113	13/11/2019	Normal	<0.01	*0.03*	0.30	0.33	0.03	0.04	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.40
MW065	MW65	0902_MW065_200511	11/05/2020	Normal	<0.01	*0.02*	0.24	0.26	0.03	0.04	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.33
MW065	MW65	0902_QC200_200511	11/05/2020	Interlab_D	<0.01	<0.02	0.2	0.2	0.028	0.03	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW065	MW65	0902_MW065_201110	10/11/2020	Normal	<0.01	*0.02*	0.18	0.20	0.04	0.03	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27
MW065	MW65	0902_MW065_210504	4/05/2021	Normal	<0.01	*0.02*	0.24	0.26	0.04	0.04	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.34
MW065	MW65	0902_MW065_211122	22/11/2021	Normal	<0.01	*0.01*	0.18	0.19	0.04	0.03	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.26
MW065	MW65	0902_QC101_211122	22/11/2021	Field_D	<0.01	*0.01*	0.25	0.26	0.05	0.04	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35
MW065	MW65	0902_MW065_220524	24/05/2022	Normal	<0.01	*0.01*	0.29	0.30	0.07	0.05	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
MW066	MW66	0902_MW66_040717	4/07/2017	Normal	<0.01	*0.18*	0.66	0.84	0.11	0.10	0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.09
MW066	MW66	0902-MW066_191113	13/11/2019	Normal	0.02	*0.35*	0.78	1.13	0.08	0.09	0.04	-	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.42
MW066	MW66	0902_MW066_200511	11/05/2020	Normal	0.02	*0.31*	0.73	1.04	0.07	0.10	0.03	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.31
MW066	MW66	0902_MW066_201110	10/11/2020	Normal	0.02	*0.27*	0.65	0.92	0.07	0.08	0.03	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.16
MW066	MW66	0902_MW066_210504	4/05/2021	Normal	0.02	*0.37*	0.85	1.22	0.13	0.12	0.04	-	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.60
MW066	MW66	0902_MW066_211122	22/11/2021	Normal	0.02	*0.25*	0.62	0.87	0.11	0.09	0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.16
MW066	MW66	0902_MW066_220524	24/05/2022	Normal	0.02	*0.41*	0.74	1.15	0.09	0.11	0.04	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.45
MW066	MW66	0902_QC102_220524	24/05/2022	Field_D	0.02	*0.49*	0.97	1.46	0.10	0.13	0.04	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.80
MW067	MW67	0902_MW67_050717	5/07/2017	Normal	<0.01	*0.01*	0.02	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW067	MW67	0902_MW067_191114	14/11/2019	Normal	<0.01	*0.01*	0.03	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW067	MW67	0902_MW067_200515	15/05/2020	Normal	<0.01	*0.02*	0.04	0.06	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW067	MW67	0902_QC110_200515	15/05/2020	Field_D	<0.01	*0.01*	0.03	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW067	MW67	0902_MW067_201111	11/11/2020	Normal	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW067	MW67	0902_MW067_210505	5/05/2021	Normal	<0.01	*0.01*	0.03	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW067	MW67	0902_MW067_211122	22/11/2021	Normal	<0.01	*0.01*	0.03	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW067	MW67	0902_MW067_220526	26/05/2022	Normal	<0.01	*0.02*	0.03	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW068	MW68	0902_MW68_050717	5/07/2017	Normal	0.06	*0.32*	2.00	2.32	0.12	0.22	0.05	-	<0.02	<0.1	<0.02	0.13	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.93
MW068	MW68	0902_MW068_191114	14/11/2019	Normal	<0.01	*0.04*	0.24	0.28	<0.02	0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.33
MW068	MW68	0902_MW068_200512	12/05/2020	Normal	0.02	*0.08*	0.44	0.52	0.02	0.04	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.65
MW068	MW68	0902_MW068_201111	11/11/2020	Normal	0.02	*0.11*	0.63	0.74	0.04	0.07	0.02	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.97
MW068	MW68	0902_MW068_210504	4/05/2021	Normal	0.07	*0.30*	1.85	2.15	0.19	0.19	0.07	-	<0.02	<0.1	0.05	0.23	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.97
MW068	MW68	0902_MW068_211123	23/11/2021	Normal	0.07	*0.33*	1.68	2.01	0.13	0.15	0.05	-	<0.02	<0.1	0.03	0.22	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.69
MW068	MW68	0902_QC206_220526	26/05/2022	Interlab_D	0.20	*0.88*	3.6	4.5	0.34	0.42	0.15	-	<0.02	0.06	0.1	0.53	0.08	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	6.4
MW068	MW68	0902_MW068_220526	26/05/2022	Normal	0.21	*1.14*	3.87	5.01	0.29	0.45	0.15	-	<0.02	<0.1	0.07	0.48	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.73
MW069	MW69	0902_MW69_050717	5/07/2017	Normal	0.03	*0.65*	0.37	1.02	0.07	0.04	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.20
MW069	MW69	0902_MW069_191114	14/11/2019	Normal	0.03	*0.50*	0.32	0.82	0.05	0.04	<0.02	-	<0.02	<0.1	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.01
MW069	MW69	0902_MW069_200515	15/05/2020	Normal	0.05	*0.73*	0.42	1.15	0.08	0.05	0.02	-	<0.02	<0.1	0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.43
MW069	MW69	0902_QC210_200515	15/05/2020	Interlab_D	0.024	*0.32*	0.24	0.56	0.041	0.026	<0.01	<0.01	<0.01	<0.05	<0.02	0.035	0.012	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.02	<0.05	-
MW069	MW69	0902_MW069_201111	11/11/2020	Normal	0.02	*0.40*	0.23	0.63	0.04	0.03	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.76
MW069	MW69	0902_MW069_210505	5/05/2021	Normal	0.01	*0.20*	0.15	0.35	0.03	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
MW069	MW69	0902_MW069_211123	23/11/2021	Normal	0.03	*0.36*	0.28	0.64	0.08	0.03	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.83
MW069	MW69	0902_MW069_220527	27/05/2022	Normal	0.03	*0.52*	0.29	0.81	0.07	0.04	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.00
MW069	MW69	0902_QC107_220527	27/05/2022	Field_D	0.03	*0.63*	0.45	1.08	0.09	0.05	0.02	-	<0.02	<0.1	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.36
MW070	MW70	0902_MW70_050717	5/07/2017	Normal	0.17	*1.22*	2.08	3.30	0.54	0.20	0.07	-	<0.02	<0.1	0.18	0.28	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.80
MW070	MW70	0902_MW070_200515	15/05/2020	Normal	0.20	*1.23*	1.48	2.71	0.36	0.16	0.07	-	<0.02	0.1	0.17	0.32	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.19

AECOM

Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Alternative Name	Field ID	Date	Sample Type																														
MW070	MW70	0902_MW070_201113	13/11/2020	Normal	0.05	*0.43*	0.48	0.91	0.12	0.04	0.02	-	<0.02	<0.1	0.06	0.12	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.35
MW070	MW70	0902_MW070_210504	4/05/2021	Normal	0.10	*0.88*	0.87	1.75	0.64	0.13	0.04	-	<0.02	0.1	0.18	0.31	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.30
MW070	MW70	0902_MW070_211122	22/11/2021	Normal	0.16	*0.86*	1.68	2.54	0.64	0.21	0.05	-	<0.02	0.1	0.20	0.48	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.49
MW070	MW70	0902_MW070_220526	26/05/2022	Normal	0.05	*1.15*	0.30	1.45	0.15	0.03	0.02	-	<0.02	<0.1	0.04	0.10	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.87
MW071	MW71	0902_MW71_040717	4/07/2017	Normal	0.09	*1.72*	0.32	2.04	0.38	0.02	0.03	-	<0.02	<0.1	0.11	0.09	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.79
MW071	MW71	0902_MW071_191114	14/11/2019	Normal	0.08	*1.76*	0.59	2.35	0.16	0.07	0.04	-	<0.02	0.1	0.18	0.19	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.22
MW071	MW71	0902_MW071_200515	15/05/2020	Normal	0.10	*2.98*	0.65	3.63	0.36	0.09	0.06	-	<0.02	0.1	0.30	0.27	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.00
MW071	MW71	0902_QC111_200515	15/05/2020	Field_D	0.06	*1.93*	0.45	2.38	0.26	0.06	0.04	-	<0.02	<0.1	0.20	0.18	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.24
MW071	MW71	0902_MW071_201113	13/11/2020	Normal	0.05	*1.53*	0.36	1.89	0.13	0.04	0.03	-	<0.02	<0.1	0.13	0.14	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.45
MW071	MW71	0902_MW071_210504	4/05/2021	Normal	0.03	*1.00*	0.31	1.31	0.30	0.04	0.02	-	<0.02	<0.1	0.11	0.10	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.93
MW071	MW71	0902_MW071_211122	22/11/2021	Normal	0.05	*1.07*	0.34	1.41	0.15	0.03	0.03	-	<0.02	<0.1	0.09	0.11	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.91
MW071	MW71	0902_MW071_220526	26/05/2022	Normal	0.03	*0.75*	0.25	1.00	0.11	0.03	<0.02	-	<0.02	<0.1	0.05	0.09	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.34
MW072	MW72	0902_MW72_040717	4/07/2017	Normal	3.94	*14.6*	80.0	94.6	21.5	11.4	4.64	-	<0.02	1.3	3.67	14.5	0.77	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	156
MW072	MW72	0902-MW072_191113	13/11/2019	Normal	4.20	*13.9*	92.6	106	19.2	15.0	6.24	-	<0.02	2.4	3.36	19.4	1.77	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	178
MW072	MW72	0902_MW072_200511	11/05/2020	Normal	3.76	*14.0*	106	120	16.6	23.8	3.26	-	<0.05	2.2	3.26	17.6	1.85	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	192
MW072	MW72	0902_MW072_201111	11/11/2020	Normal	2.80	*14.2*	70.3	84.5	15.5	13.4	3.02	-	<0.02	2.2	2.72	15.4	1.57	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	141
MW072	MW72	0902_MW072_210505	5/05/2021	Normal	1.90	*12.8*	51.5	64.3	11.0	8.58	2.12	-	<0.02	0.5	1.74	8.85	1.00	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	100
MW072	MW72	0902_MW072_211124	24/11/2021	Normal	4.16	*25.6*	104	130	21.6	15.4	4.15	-	<0.02	2.6	3.80	21.4	2.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	205
MW072	MW72	0902_MW072_220524	24/05/2022	Normal	2.14	*32.1*	36.4	68.5	6.20	5.43	2.36	-	<0.02	0.9	0.84	6.22	0.83	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	93.4
MW073	MW73	0902_MW73_040717	4/07/2017	Normal	1.39	*3.70*	32.0	35.7	3.21	4.20	0.85	-	<0.02	<0.1	0.93	4.89	0.57	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	51.7
MW073	MW73	0902_MW073_191128	28/11/2019	Normal	2.38	*4.70*	40.4	45.1	5.38	9.52	1.93	-	<0.02	0.3	2.42	12.3	0.88	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	80.2
MW073	MW73	0902_MW073_200512	11/05/2020	Normal	2.43	*5.35*	38.3	43.6	4.83	5.82	2.34	-	<0.02	1.4	2.44	11.5	0.91	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	75.3
MW073	MW73	0902_QC101_200512	11/05/2020	Field_D	2.48	*5.66*	47.4	53.1	5.81	9.64	2.70	-	<0.02	1.4	2.54	13.2	0.94	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	91.8
MW073	MW73	0902_MW073_201111	11/11/2020	Normal	1.16	*6.38*	19.3	25.7	3.10	2.90	1.60	-	<0.02	1.4	1.00	4.72	0.64	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	42.2
MW073	MW73	0902_MW073_210505	5/05/2021	Normal	0.82	*3.86*	21.4	25.3	2.53	3.23	0.76	-	<0.02	0.4	0.73	4.18	0.47	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	38.4
MW073	MW73	0902_MW073_211124	24/11/2021	Normal	1.72	*4.32*	38.5	42.8	6.10	6.09	1.95	-	<0.02	1.3	2.70	15.7	0.95	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	79.3
MW073	MW73	0902_MW073_220524	24/05/2022	Normal	1.90	*1.53*	26.1	27.6	0.22	1.13	3.68	-	<0.02	0.2	0.12	1.25	0.26	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	36.4
MW074	MW74	0902_MW74_040717	4/07/2017	Normal	0.95	*11.6*	38.9	50.5	4.85	6.41	0.72	-	<0.02	<0.1	0.97	5.61	0.84	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	70.8
MW074	MW74	0902_MW074_200512	11/05/2020	Normal	1.52	*11.0*	26.6	37.6	3.71	3.90	2.30	-	<0.02	1.4	1.18	6.32	0.77	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	58.7
MW074	MW74	0902_QC201_200512	12/05/2020	Interlab_D	0.97	*6.3*	21	27.3	2.4	2.5	1.4	<0.01	<0.01	1.4	0.92	4.3	0.53	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW074	MW74	0902_MW074_201111	11/11/2020	Normal	1.13	*3.48*	23.6	27.1	3.56	3.99	1.12	-	<0.02	1.0	1.47	7.49	0.53	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	47.4
MW074	MW74	0902_MW074_210505	5/05/2021	Normal	0.96	*1.04*	24.0	25.0	1.90	2.62	1.58	-	<0.02	0.1	0.83	5.34	0.41	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	38.8
MW074	MW74	0902_MW074_211124	24/11/2021	Normal	1.28	*5.59*	27.1	32.7	5.20	4.69	1.36	-	<0.02	2.5	1.43	8.87	0.82	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	58.8
MW074	MW74	0902_MW074_220524	24/05/2022	Normal	1.27	*6.34*	28.7	35.0	4.92	5.74	1.57	-	<0.02	3.0	0.94	7.51	0.85	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	60.8
MW075	MW75	0902_MW75_271117	27/11/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW075	MW75	0902_MW075_191115	15/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW075	MW75	0902_MW075_200515	15/05/2020	Normal	0.04	*0.04*	4.26	4.30	4.16	3.37	<0.02	-	<0.02	0.4	0.99	5.00	0.54	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.8
MW075	MW75	0902_MW075_201110	10/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW075	MW75	0902_MW075_210504	4/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW075	MW75	0902_MW075_211125	25/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW075	MW75	0902_MW075_220530	30/05/2022	Normal	<0.01	<0.01	0.01	0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
MW076	MW76	0902_MW76_271117	27/11/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW076	MW76	0902_MW076_191115	15/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW076	MW76	0902_MW076_200515	15/05/2020	Normal	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW076	MW76	0902_MW076_201109	9/11/2020	Normal	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW076	MW76	0902_MW076_210503	3/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW076	MW76	0902_MW076_211125	25/11/2021	Normal	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW076	MW76	0902_MW076_220531	31/05/2022	Normal	<0.01	<0.01	0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW077	MW77	0902_QC201_271117	27/11/2017	Interlab_D	<0.01	*0.01*	0.02	0.03	<0.01	<0.01	<0.01	-	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
MW077	MW77	0902_MW77_271117	27/11/2017	Normal	<0.01	*0.04*	0.03	0.07	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW077	MW77	0902_MW077_191115	15/11/2019	Normal	<0.01	*0.04*	0.03	0.07	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07

AECOM

Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Alternative Name	Field ID	Date	Sample Type																														
MW077	MW77	0902_MW077_200515	15/05/2020	Normal	<0.01	*0.08*	0.04	0.12	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
MW077	MW77	0902_MW077_201109	9/11/2020	Normal	<0.01	*0.07*	0.04	0.11	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW077	MW77	0902_MW077_210503	3/05/2021	Normal	<0.01	*0.04*	0.03	0.07	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW077	MW77	0902_MW077_211125	25/11/2021	Normal	<0.01	*0.05*	0.04	0.09	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09
MW077	MW77	0902_MW077_220531	31/05/2022	Normal	<0.01	*0.03*	0.03	0.06	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW078	MW78	0902_MW78_271117	27/11/2017	Normal	<0.01	<0.01	0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW078	MW78	0902_QC101_271117	27/11/2017	Field_D	<0.01	<0.01	0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.15	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
MW078	MW78	0902_MW078_191115	15/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW078	MW78	0902_MW078_200513	13/05/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW078	MW78	0902_MW078_201109	9/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW078	MW78	0902_MW078_210503	3/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW078	MW78	0902_MW078_211125	25/11/2021	Normal	<0.01	*0.01*	0.18	0.19	0.06	0.03	<0.02	-	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.34
MW078	MW78	0902_QC208_220531	31/05/2022	Interlab_D	<0.01	*0.02*	0.41	0.43	0.06	0.06	<0.01	-	<0.02	0.09	0.04	0.13	0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.82
MW078	MW78	0902_MW078_220531	31/05/2022	Normal	<0.01	*0.01*	0.56	0.57	0.07	0.09	<0.02	-	<0.02	0.1	0.05	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.02
MW079	MW79	0902_MW79_171117	17/11/2017	Normal	0.04	*0.03*	0.55	0.58	0.07	0.12	0.03	-	<0.02	<0.1	<0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.96
MW079	MW79	0902_QC183_171117	17/11/2017	Field_D	0.04	*0.04*	0.65	0.69	0.11	0.12	0.04	-	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.09
MW079	MW79	0902_MW079_191115	15/11/2019	Normal	0.02	*0.01*	0.83	0.84	0.13	0.12	<0.02	-	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.21
MW079	MW79	0902_MW079_200513	13/05/2020	Normal	0.02	*0.02*	1.07	1.09	0.24	0.14	0.03	-	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.68
MW079	MW79	0902_MW079_201109	9/11/2020	Normal	0.01	<0.01	0.72	0.72	0.12	0.12	<0.02	-	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.07
MW079	MW79	0902_MW079_210503	3/05/2021	Normal	0.02	<0.01	1.13	1.13	0.16	0.16	0.03	-	<0.02	<0.1	0.03	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.67
MW079	MW79	0902_MW079_211124	24/11/2021	Normal	0.02	*0.08*	0.82	0.90	0.14	0.11	0.02	-	<0.02	<0.1	0.02	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.34
MW079	MW79	0902_MW079_220531	31/05/2022	Normal	0.02	*0.52*	1.25	1.77	0.16	0.18	0.03	-	<0.02	<0.1	0.04	0.14	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.36
MW080	MW80	0902_MW80_171117	17/11/2017	Normal	0.25	*2.51*	3.80	6.31	0.72	0.70	0.36	-	<0.02	<0.1	0.19	0.97	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.61
MW080	MW80	0902_MW080_191115	15/11/2019	Normal	0.10	*1.17*	2.73	3.90	0.43	0.42	0.13	-	<0.02	<0.1	0.08	0.44	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.55
MW080	MW80	0902_MW080_200513	13/05/2020	Normal	0.18	*2.28*	4.32	6.60	0.66	0.63	0.29	-	<0.02	<0.1	0.16	0.78	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.39
MW080	MW80	0902_MW080_201109	9/11/2020	Normal	0.20	*3.38*	4.97	8.35	0.74	0.91	0.33	-	<0.02	0.1	0.17	0.89	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.8
MW080	MW80	0902_MW080_210503	3/05/2021	Normal	0.10	*0.88*	2.21	3.09	0.39	0.37	0.12	-	<0.02	<0.1	0.09	0.47	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.69
MW080	MW80	0902_QC207_211124	24/11/2021	Interlab_D	0.17	*2.3*	4.2	6.5	0.64	0.65	0.27	-	<0.02	0.08	0.2	0.79	0.11	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	9.4
MW080	MW80	0902_MW080_211124	24/11/2021	Normal	0.18	*2.92*	4.38	7.30	0.86	0.62	0.28	-	<0.02	<0.1	0.16	1.01	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.5
MW080	MW80	0902_MW080_220616	16/06/2022	Normal	<0.01	*0.06*	0.53	0.59	0.04	0.05	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.68
MW081	MW81	0902_MW81_091117	9/11/2017	Normal	<0.01	*0.04*	0.03	0.07	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09
MW081	MW81	0902_QC107_191115	15/11/2019	Field_D	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW081	MW81	0902_MW081_191115	15/11/2019	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW081	MW81	0902_MW081_200515	15/05/2020	Normal	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.05	<0.05
MW081	MW81	0902_MW081_201113	13/11/2020	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW081	MW81	0902_MW081_210505	5/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW081	MW81	0902_MW081_211129	29/11/2021	Normal	<0.01	*0.02*	0.02	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW081	MW81	0902_MW081_220530	30/05/2022	Normal	<0.01	*0.07*	0.03	0.10	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10
MW082	MW82	0902_MW82_091117	9/11/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	MW82	0902_MW082_191115	15/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	MW82	0902_MW082_200515	15/05/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	MW82	0902_MW082_201109	9/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	MW82	0902_MW082_210504	4/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	MW82	0902_QC101_210504	4/05/2021	Field_D	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	MW82	0902_MW082_211125	25/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	MW82	0902_MW082_220530	30/05/2022	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW086	MW86	0902_MW86_171117	17/11/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW086	MW86	0902_MW086_191115	15/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW086	MW86	0902_MW086_200513	13/05/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW086	MW86	0902_MW086_201109	9/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW086	MW86	0902_MW086_210503	3/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01

AECOM

Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Alternative Name	Field ID	Date	Sample Type																														
MW086	MW86	0902_MW086_211122	22/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW091	MW91	0902_MW91_171117	17/11/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW091	MW91	0902_MW091_200513	13/05/2020	Normal	<0.01	*0.03*	0.03	0.06	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.06
MW091	MW91	0902_MW091_201109	9/11/2020	Normal	<0.01	*0.03*	0.02	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.05
MW091	MW91	0902_MW091_210503	3/05/2021	Normal	<0.01	*0.03*	0.04	0.07	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.07
MW091	MW91	0902_MW091_211125	25/11/2021	Normal	<0.01	*0.02*	0.02	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.04
MW091	MW91	0902_MW091_220530	30/05/2022	Normal	<0.01	*0.03*	0.06	0.09	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.09
MW092	MW92	0902_MW92_171117	17/11/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW092	MW92	0902_MW092_191111	11/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW092	MW92	0902_MW092_200513	13/05/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW092	MW92	0902_MW092_201113	13/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW092	MW92	0902_MW092_210506	6/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW092	MW92	0902_MW092_211125	25/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW092	MW92	0902_MW092_220531	31/05/2022	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW095	MW95	0902_MW95_161117	16/11/2017	Normal	<0.01	<0.01	0.07	0.07	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.07
MW095	MW95	0902_MW095_191108	8/11/2019	Normal	<0.01	<0.01	0.14	0.14	0.04	0.05	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.23
MW095	MW95	0902_MW095_200514	14/05/2020	Normal	<0.01	<0.01	0.18	0.18	0.07	0.06	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.31
MW095	MW95	0902_MW095_201112	12/11/2020	Normal	<0.01	<0.01	0.12	0.12	0.04	0.03	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.19
MW095	MW95	0902_MW095_210506	6/05/2021	Normal	<0.01	<0.01	0.09	0.09	0.04	0.03	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.16
MW095	MW95	0902_MW095_211129	29/11/2021	Normal	<0.01	<0.01	0.12	0.12	0.06	0.04	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.22
MW097	MW97	0902_QC200_171109	11/09/2017	Interlab_D	<0.01	<0.01	0.02	0.02	<0.01	<0.01	<0.01	-	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
MW097	MW97	0902_MW97_091117	9/11/2017	Normal	<0.01	<0.01	0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.02
MW097	MW97	0902_MW097_191114	14/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW097	MW97	0902_MW097_200514	14/05/2020	Normal	<0.01	<0.01	0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.02
MW097	MW97	0902_MW097_201113	13/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW097	MW97	0902_MW097_210505	5/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW097	MW97	0902_MW097_211129	29/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW097	MW97	0902_MW097_220530	30/05/2022	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW098	MW98	0902_MW98_161117	16/11/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW098	MW98	0902_MW098_191114	14/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW098	MW98	0902_MW098_200514	14/05/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW098	MW98	0902_MW098_201112	12/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW098	MW98	0902_MW098_210505	5/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW098	MW98	0902_MW098_211129	29/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.01
MW098	MW98	0902_MW098_220530	30/05/2022	Normal	<0.01	<0.01	0.01	0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.01
MW099	MW99	0902_MW99_131117	13/11/2017	Normal	<0.01	*0.02*	0.03	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.05
MW099	MW99	0902_MW099_191114	14/11/2019	Normal	<0.01	*0.03*	0.06	0.09	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.09
MW099	MW99	0902_MW099_200514	14/05/2020	Normal	<0.01	*0.05*	0.09	0.14	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.16
MW099	MW99	0902_MW099_201112	12/11/2020	Normal	<0.01	*0.04*	0.06	0.10	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.10
MW106		0902_MW106_200611	11/06/2020	Normal	0.03	*0.16*	0.64	0.80	0.13	0.15	0.03	-	<0.02	<0.1	0.03	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	1.35
MW106		0902_MW106_201109	9/11/2020	Normal	0.02	*0.09*	0.47	0.56	0.09	0.08	0.02	-	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.93
MW106		0902_MW106_211124	24/11/2021	Normal	0.08	*0.97*	1.89	2.86	0.34	0.20	0.11	-	<0.02	<0.1	0.07	0.44	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	4.14
MW106		0902_QC107_211124	24/11/2021	Field_D	0.05	*0.53*	1.29	1.82	0.23	0.18	0.06	-	<0.02	<0.1	0.06	0.32	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	2.75
MW106		0902_MW106_220531	31/05/2022	Normal	<0.01	*0.07*	0.50	0.57	0.04	0.05	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	0.66
MW107D		0902_MW107_D_200611	11/06/2020	Normal	0.07	*0.40*	1.71	2.11	0.19	0.25	0.07	-	<0.02	<0.1	0.05	0.37	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	3.15
MW107D		0902_MW107_D_201110	10/11/2020	Normal	0.06	*0.25*	1.16	1.41	0.13	0.14	0.04	-	<0.02	<0.1	0.06	0.32	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	2.20
MW107D		0902_QC204_211123	23/11/2021	Interlab_D	1.9	*7.6*	15	23	2.7	2.7	0.84	-	<0.02	0.97	1.4	7.0	1.1	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.1	<0.02	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	41
MW107D		0902_MW107D_211123	23/11/2021	Normal	2.07	*7.51*	14.2	21.7	3.29	2.79	0.97	-	<0.02	0.8	1.45	8.38	1.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	42.7
MW107I		0902_QC200_200611	11/06/2020	Interlab_D	0.22	*1.1*	3.4	4.5	0.43	0.44	0.18	-	<0.02	0.09	0.1	0.82	0.10	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	7.0
MW107I		0902_MW107_I_200611	11/06/2020	Normal	0.19	*1.16*	3.84	5.00	0.43	0.62	0.19	-	<0.02	<0.1	0.13	0.84	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.51
MW107I		0902_MW107_I_201110	10/11/2020	Normal	1.24	*1.95*	9.56	11.5	1.77	2.16	0.53	-	<0.02	0.6	0.81	3.80	0.65	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	23.1

AECOM

Table T7: Historical Groundwater Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Alternative Name	Field ID	Date	Sample Type																														
MW107I		0902_QC100_201110	10/11/2020	Field_D	0.96	*1.54*	7.47	9.01	1.35	1.69	0.41	-	<0.02	0.4	0.64	2.98	0.50	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.9
MW107I		0902_MW107I_211123	23/11/2021	Normal	0.77	*2.67*	7.05	9.72	1.28	0.94	0.38	-	<0.02	0.2	0.48	3.08	0.41	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.3
MW107I		0902_QC104_211123	23/11/2021	Field_D	2.32	*7.88*	18.8	26.7	3.48	3.40	1.15	-	<0.02	0.9	1.42	9.18	1.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	49.7
MW107I		0902_MW107I_220524	24/05/2022	Normal	*32.4*	*156*	255	411	32.6	44.3	22.7	-	0.08	11.5	18.9	87.7	17.9	0.09	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	679
MW107I		0902_MW107I_220616	16/06/2022	Normal	*75.6*	*266*	500	766	71.7	91.3	52.8	-	0.13	23.0	43.1	178	37.0	0.20	<0.04	<0.04	<0.04	<0.04	<0.11	<0.05	0.10	<0.05	<0.05	<0.04	<0.11	<0.04	<0.11	<0.11	<0.04	<0.11	1,340
MW107I		0902_MW107I_220714	14/07/2022	Normal	10.6	*62.7*	92.6	155	12.2	15.3	5.33	-	<0.02	4.0	6.14	29.7	5.18	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	244
MW107I		0902_QC101_220714	14/07/2022	Field_D	12.0	*64.7*	96.7	161	13.9	15.0	6.08	-	<0.02	4.4	6.84	32.6	5.87	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	258
MW108		0902_MW108_200611	11/06/2020	Normal	<0.01	*0.03*	0.34	0.37	0.11	0.12	<0.02	-	<0.02	<0.1	0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.73
MW108		0902_QC200_201111	11/11/2020	Interlab_D	0.11	*0.40*	0.49	0.90	0.14	0.09	0.03	-	<0.02	0.1	0.09	0.19	0.04	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	1.7
MW108		0902_MW108_201111	11/11/2020	Normal	0.10	*0.38*	0.45	0.83	0.13	0.05	0.03	-	<0.02	<0.1	0.08	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.45
MW108		0902_MW108_211123	23/11/2021	Normal	0.13	*0.62*	0.88	1.50	0.30	0.12	0.05	-	<0.02	<0.1	0.12	0.34	0.08	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.67
MW108		0902_QC105_211123	23/11/2021	Field_D	0.16	*0.80*	0.95	1.75	0.33	0.13	0.05	-	<0.02	0.1	0.14	0.42	0.09	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.20
MW108		0902_QC203_220526	26/05/2022	Interlab_D	0.01	*0.05*	0.64	0.70	0.22	0.17	<0.01	-	<0.02	0.03	0.03	0.17	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	1.3
MW108		0902_MW108_220526	26/05/2022	Normal	0.02	*0.08*	0.97	1.05	0.25	0.24	<0.02	-	<0.02	<0.1	0.04	0.20	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.82
MW109		0902_MW109_200611	11/06/2020	Normal	0.07	*1.36*	1.01	2.37	0.14	0.19	0.06	-	<0.02	<0.1	0.05	0.25	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.22
MW109		0902_MW109_201109	9/11/2020	Normal	0.09	*1.74*	1.36	3.10	0.18	0.20	0.08	-	<0.02	<0.1	0.07	0.30	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.07
MW109		0902_MW109_211122	22/11/2021	Normal	0.20	*3.50*	2.87	6.37	0.50	0.41	0.19	-	<0.02	<0.1	0.12	0.69	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.59
MW109		0902_QC100_211122	22/11/2021	Field_D	0.19	*3.21*	2.76	5.97	0.49	0.39	0.18	-	<0.02	<0.1	0.12	0.68	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.12
MW109		0902_MW109_220527	27/05/2022	Normal	0.12	*3.14*	1.97	5.11	0.30	0.31	0.13	-	<0.02	<0.1	0.10	0.38	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.54
MW110		0902_MW110_200611	11/06/2020	Normal	0.01	*0.03*	0.52	0.55	0.14	0.16	<0.02	-	<0.02	<0.1	0.04	0.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.09
MW110		0902_MW110_201109	9/11/2020	Normal	<0.01	*0.01*	0.35	0.36	0.08	0.08	<0.02	-	<0.02	<0.1	0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.65
MW110		0902_MW110_211122	22/11/2021	Normal	0.05	*0.10*	2.36	2.46	0.63	0.44	0.04	-	<0.02	<0.1	0.10	0.60	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.38
MW110		0902_MW110_220527	27/05/2022	Normal	0.05	*0.11*	2.26	2.37	0.43	0.46	0.04	-	<0.02	<0.1	0.11	0.45	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.98
MW111		0902_MW111_200611	11/06/2020	Normal	0.02	*0.02*	0.62	0.64	0.22	0.19	<0.02	-	<0.02	<0.1	0.08	0.39	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.56
MW111		0902_MW111_201112	12/11/2020	Normal	<0.01	<0.01	0.22	0.22	0.10	0.07	<0.02	-	<0.02	<0.1	0.04	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.60
MW111		0902_MW111_211125	25/11/2021	Normal	0.01	*0.05*	0.27	0.32	0.16	0.04	<0.02	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.61
MW111		0902_MW111_220526	26/05/2022	Normal	<0.01	*0.04*	0.69	0.73	0.98	0.52	<0.02	-	<0.02	<0.1	0.08	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.46
MW112		0902_MW112_200611	11/06/2020	Normal	<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW112		0902_MW112_201112	12/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW112		0902_MW112_211125	25/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW112		0902_MW112_220526	26/05/2022	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW113		0902_MW113_200611	11/06/2020	Normal	<0.01	*0.05*	<0.02	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW113		0902_MW113_201112	12/11/2020	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW113		0902_MW113_211129	29/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW113		0902_MW113_220526	26/05/2022	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW114		0902_MW114_200611	11/06/2020	Normal	<0.01	<0.01	0.06	0.06	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
MW114		0902_QC100_200611	11/06/2020	Field_D	<0.01	<0.01	0.06	0.06	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW114		0902_MW114_201112	12/11/2020	Normal	<0.01	<0.01	0.15	0.15	0.04	0.03	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.22
MW114		0902_QC213_211129	29/11/2021	Interlab_D	<0.01	<0.01	0.14	0.14	0.03	0.02	<0.01	-	<0.02	<0.02	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.20
MW114		0902_MW114_211129	29/11/2021	Normal	<0.01	<0.01	0.14	0.14	0.03	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
MW114		0902_MW114_220526	26/05/2022	Normal	<0.01	<0.01	0.15	0.15	0.02	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
MW114		0902_QC106_220526	26/05/2022	Field_D	<0.01	<0.01	0.13	0.13	0.02	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
MW120		0902_MW120_210504	4/05/2021	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW120		0902_MW120_211214	14/12/2021	Normal	<0.01	*0.02*	<0.01	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW120		0902_QC116_211214	14/12/2021	Field_D	<0.01	*0.02*	<0.01	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW121		0902_MW121_210504	4/05/2021	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW121		0902_QC216_211214	14/12/2021	Interlab_D	<0.01	<0.01	0.02	0.02	<0.01	<0.01	<0.01	-	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.02
MW121		0902_MW121_211214	14/12/2021	Normal	<0.01	*0.01*	0.01	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02

AECOM

Table T8 - Historical Surface Water Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water					10			2																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Field ID	Date	Sample Type																															
SW001	0902_SW001_030717	3/07/2017	Normal		9.02	*10.3*	0.78	11.1	0.52	0.43	0.18	-	<0.02	4.8	7.62	50.6	3.93	9.00	9.37	1.19	1.22	<0.02	<0.05	0.13	712	25.6	0.20	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	847
SW001	0902_QC107_030717	3/07/2017	Field_D		10.1	*10.6*	1.17	11.8	0.87	0.71	0.21	-	0.23	3.2	8.90	53.5	2.31	7.49	7.79	1.14	1.50	0.02	<0.05	0.61	477	16.4	0.14	0.53	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	604
SW001	0902_SW001_270218	27/02/2018	Normal		6.28	*11.4*	2.44	13.8	0.30	0.28	0.27	-	<0.02	0.9	2.07	2.51	3.10	7.01	5.58	0.39	0.13	0.03	<0.05	<0.05	8.06	5.97	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	56.7
SW001	0902_SW001_191104	4/11/2019	Normal		8.32	*62.8*	3.99	66.8	0.71	0.51	0.48	-	1.23	1.9	3.08	3.81	3.34	15.1	47.0	14.1	4.05	0.23	0.10	<0.05	8.72	49.2	0.46	0.42	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	230
SW001	0902_QC100_191104	4/11/2019	Field_D		8.80	*77.9*	4.08	82.0	0.70	0.52	0.43	-	2.01	2.0	3.08	4.01	3.42	13.6	49.6	36.2	11.3	0.75	0.21	<0.05	8.88	49.5	1.56	0.92	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	279
SW001	0902_SW001_201113	13/11/2020	Normal		4.98	*14.6*	3.49	18.1	0.67	0.42	0.24	-	0.10	2.2	4.08	5.54	3.16	9.32	5.78	0.59	0.20	0.05	0.05	<0.05	7.36	8.20	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	71.0
SW001	0902_QC108_201113	13/11/2020	Field_D		5.08	*41.2*	3.48	44.7	0.68	0.46	0.31	-	0.49	2.3	3.78	5.00	3.17	9.36	13.4	6.65	4.85	1.22	0.82	<0.05	7.36	24.2	0.59	0.24	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	135
SW001	0902_SW001_210507	7/05/2021	Normal		0.85	*7.54*	2.73	10.3	0.40	0.34	0.18	-	0.14	0.5	1.16	1.53	0.54	0.45	0.46	0.19	0.08	<0.02	<0.05	<0.05	0.27	0.42	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.8
SW001	0902_QC208_211126	26/11/2021	Interlab_D		0.23	*4.1*	0.88	5.0	0.21	0.12	0.06	-	<0.02	0.46	0.42	0.48	0.14	0.11	0.09	0.03	<0.05	<0.1	<0.5	<0.01	0.04	0.1	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	7.5
SW001	0902_SW001_211126	26/11/2021	Normal		0.23	*4.10*	0.90	5.00	0.27	0.12	0.05	-	0.04	0.3	0.43	0.62	0.13	0.10	0.09	0.04	0.02	<0.02	<0.05	<0.05	<0.05	0.10	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.54
SW001	0902_SW001_220524	24/05/2022	Normal		1.57	*23.0*	9.28	32.3	1.67	1.65	0.48	-	0.13	1.0	1.96	3.78	1.67	0.68	0.70	0.28	0.06	<0.02	<0.05	<0.05	0.33	0.89	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	49.2
SW002	0902_SW002_040717	4/07/2017	Normal		5.28	*53.5*	30.4	83.9	4.08	3.62	2.55	-	<0.02	3.0	3.70	24.7	2.54	3.56	1.84	0.16	0.09	<0.02	<0.05	0.06	123	4.85	<0.05	0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	267
SW002	0902_SW002_180115	15/01/2018	Normal		2.59	*24.4*	6.18	30.6	1.28	0.81	0.48	-	0.03	0.6	1.20	3.13	1.39	1.70	0.77	0.07	<0.02	<0.02	<0.05	<0.05	4.22	1.12	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	50.0
SW002	0902_SW002_191104	4/11/2019	Normal		0.74	*10.9*	2.55	13.4	0.45	0.42	0.23	-	0.02	0.4	0.66	1.12	0.42	0.93	0.98	0.19	0.02	<0.02	<0.05	<0.05	0.72	1.51	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	22.3
SW002	0902_SW002_200514	14/05/2020	Normal		0.30	*13.7*	2.94	16.6	0.36	0.34	0.36	-	0.02	0.1	0.25	0.72	0.13	0.08	0.17	0.03	<0.02	<0.02	<0.05	<0.05	0.10	0.19	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.8
SW002	0902_SW002_2007140704	14/07/2020	Normal		0.02	*0.47*	0.17	0.64	0.04	0.03	<0.02	-	<0.02	<0.1	0.03	0.10	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.98
SW002	0902_SW002_2007140719	14/07/2020	Normal		0.04	*0.93*	0.38	1.31	0.08	0.07	0.03	-	<0.02	<0.1	0.06	0.17	0.03	<0.02	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.88
SW002	0902_SW002_2007140734	14/07/2020	Normal		0.27	*4.60*	1.23	5.83	0.26	0.23	0.10	-	<0.02	0.1	0.28	0.63	0.18	0.38	0.70	0.19	0.05	<0.02	<0.05	<0.05	0.26	1.01	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.5
SW002	0902_SW002_2007140749	14/07/2020	Normal		0.59	*5.19*	1.29	6.48	0.29	0.22	0.13	-	<0.02	0.1	0.46	0.88	0.42	0.80	1.16	0.29	0.08	<0.02	<0.05	<0.05	0.54	2.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.5
SW002	0902_SW002_2007140804	14/07/2020	Normal		0.64	*4.66*	1.19	5.85	0.23	0.22	0.10	-	<0.02	0.2	0.52	0.96	0.48	0.69	1.07	0.20	0.07	<0.02	<0.05	<0.05	0.48	1.88	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.6
SW002	0902_SW002_2007140834	14/07/2020	Normal		0.55	*3.93*	0.94	4.87	0.19	0.16	0.08	-	<0.02	0.2	0.41	0.77	0.39	0.52	0.77	0.19	0.08	<0.02	<0.05	<0.05	0.43	1.12	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.7
SW002	0902_SW002_2007140904	14/07/2020	Normal		0.62	*4.58*	1.58	6.16	0.30	0.26	0.13	-	<0.02	0.2	0.48	0.96	0.45	0.54	0.71	0.12	0.04	<0.02	<0.05	<0.05	0.43	1.02	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.4
SW002	0902_SW002_2007140934	14/07/2020	Normal		0.80	*13.0*	2.62	15.6	0.45	0.42	0.23	-	0.04	0.3	0.64	1.32	0.49	0.65	0.92	0.19	0.07	<0.02	<0.05	<0.05	0.48	1.43	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	24.1
SW002	0902_SW002_2007141034	14/07/2020	Normal		0.82	*20.8*	3.65	24.4	0.66	0.62	0.30	-	0.04	0.4	0.74	1.62	0.50	0.62	1.01	0.21	0.07	<0.02	<0.05	<0.05	0.51	1.65	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.2
SW002	0902_SW002_2007141134	14/07/2020	Normal		0.74	*16.8*	3.67	20.5	0.68	0.65	0.33	-	0.06	0.3	0.70	1.54	0.45	0.62	0.85	0.23	0.09	<0.02	<0.05	<0.05	0.42	1.52	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	29.7
SW002	0902_QC105_200714	14/07/2020	Field_D		0.04	*0.89*	0.36	1.25	0.08	0.07	0.02	-	<0.02	<0.1	0.06	0.16	0.03	<0.02	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.80
SW002	0902_QC106_200714	14/07/2020	Field_D		0.60	*3.98*	1.10	5.08	0.20	0.19	0.08	-	<0.02	0.2	0.45	0.80	0.41	0.52	0.84	0.19	0.08	<0.02	<0.05	<0.05	0.48	1.55	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.7
SW002	0902_SW002_2008071145	7/08/2020	Normal		0.52	*10.0*	5.04	15.0	0.66	0.70	0.36	-	<0.02	0.2	0.40	1.32	0.29	0.05	0.04	0.02	<0.02	<0.02	<0.05	<0.05	<0.05	0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.7
SW002	0902_SW002_2008071200	7/08/2020	Normal		0.53	*10.6*	4.72	15.3	0.63	0.71	0.35	-	<0.02	0.2	0.39	1.29	0.28	0.04	0.04	0.03	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.8
SW002	0902_SW002_2008071215	7/08/2020	Normal		0.54	*10.4*	4.81	15.2	0.64	0.70	0.37	-	<0.02	0.2	0.40	1.28	0.27	0.05	0.04	0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.7
SW002	0902_SW002_2008071230	7/08/2020	Normal		0.46	*8.40*	4.02	12.4	0.52	0.56	0.29	-	<0.02	0.2	0.34	1.06	0.23	0.04	0.03	0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16.2
SW002	0902_SW002_2008071300	7/08/2020	Normal		0.13	*3.23*	1.02	4.25	0.14	0.13	0.07	-	<0.02	<0.1	0.10	0.31	0.07	<0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.28
SW002	0902_SW002_2008071330	7/08/2020	Normal		0.13	*2.60*	0.86	3.46	0.13	0.12	0.06	-	<0.02	<0.1	0.10	0.27	0.07	0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.44
SW002	0902_SW002_2008071400	7/08/2020	Normal		0.06	*1.74*	0.50	2.24	0.08	0.07	0.04	-	<0.02	<0.1	0.04	0.17	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.80
SW002	0902_SW002_2008071500	7/08/2020	Normal		0.44	*2.94*	0.85	3.79	0.16	0.14	0.06	-	<0.02	0.1	0.29	0.61	0.32	0.35	0.44	0.14	0.08	<0.02	<0.05	<0.05	0.32	0.57	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.81
SW002	0902_SW002_2008071600	7/08/2020	Normal		0.43	*9.06*	2.03	11.1	0.35	0.35	0.16	-	0.02	0.2	0.34	0.90	0.28	0.28	0.40	0.12	0.05	<0.02	<0.05	<0.05	0.26	0.64	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	15.9
SW002	0902_SW002_2008071345	7/08/2020	Normal		0.08	*2.01*	0.64	2.65	0.10	0.08	0.04	-	<0.02	<0.1	0.06	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.32
SW002	0902_SW002_200908	8/09/2020	Normal		1.17	*44.4*	9.40	53.8	1.35	1.55	1.40	-	0.35	0.4	0.85	2.67	0.56	0.11	0.18	0.36	0.12	<0.02	<0.05	<0.05	0.23	0.23	<0.05	0.10	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	65.4
SW002	0902_QC107_200908	8/09/2020	Field_D		1.14	*46.7*	10.8	57.5	1.46	1.76	1.86	-	0.41	0.4	0.90	2.83	0.60	0.12	0.16	0.30	0.11	<0.02	<0.05	<0.05	0.33	0.22	<0.05	0.09	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	70.2
SW002	0902_SW002_2010281630	28/10/2020	Normal		0.99	*27.7*	15.4	43.1	2.67	2.86	1.24	-	0.02	0.7	1.16	4.78	0.38	0.10	0.09	0.02	<0.02	<0.02	<0.05	<0.05	0.19	0.14	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	58.5
SW002	0902_SW002_201113	13/11/2020	Normal		0.36	*16.5*	5.92	22.4	0.66	0.69	0.40	-	<0.02	0.2	0.36	1.63	0.20	0.04	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	0.06	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	27.1
SW002	0902_QC208_201113	13/11/2020	Interlab_D		0.37	*11*	4.9	15.9	0.69	0.6	0.3	<0.01	<0.01	0.24	0.36	1.4	0.19	0.034	0.033	0.016	<0.01	<0.02	<0.02	<0.01	0.051	0.048	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
SW002	0902_QC208_210129	29/01/2021	Interlab_D		0.10	*3.5*	1.2	4.7	0.21	0.19	0.11	-	<0.02	0.09	0.1	0.38	0.08	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.13	0.03	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	6.1
SW002	0902_QC209_210129	29/01/2021	Interlab_D		0.11	*4.0*	1.3	5.2	0.21	0.20	0.11	-	<0.02	0.1	0.1	0.39	0.09	<0.01	0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.13	0.03	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	6.8
SW002	0902_SW002_2101290800	29/01/2021	Normal		0.11	*3.33*	1.12	4.45	0.18	0.15	0.08	-	<0.02	<0.1	0.10	0.39	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.65
SW002	0902_QC109_210129	29/01/2021	Field_D		0.11	*3.29*	1.11	4.40	0.17	0.14	0.09	-	<0.02	<0.1	0.10	0.39	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.57
SW002	0902_SW002_2101290845	29/01/2021	Normal		0.12	*3.42*	1.14	4.56	0.18	0.14	0.09	-	<0.02	<0.1	0.10	0.41	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.78
SW002	0902_SW002_2101290930	29/01/2021	Normal		0.12	*3.84*	1.25	5.09	0.19	0.15	0.10	-	<0.02	<0.1	0.11	0.44	0.08	<0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.41

AECOM

Table T8 - Historical Surface Water Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids											PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water					10			2																											
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																													
Location Code	Field ID	Date	Sample Type																																
SW002	0902_SW002_2101291015	29/01/2021	Normal		0.10	*3.70*	1.27	4.97	0.20	0.16	0.10	-	<0.02	<0.1	0.10	0.43	0.08	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.28
SW002	0902_SW002_2101291100	29/01/2021	Normal		0.13	*4.68*	1.43	6.11	0.22	0.17	0.10	-	<0.02	<0.1	0.12	0.47	0.08	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.13	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.55
SW002	0902_QC110_210129	29/01/2021	Field_D		0.10	*3.69*	1.27	4.96	0.19	0.16	0.10	-	<0.02	<0.1	0.10	0.44	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.25
SW002	0902_SW002_2101291145	29/01/2021	Normal		0.23	*3.83*	1.22	5.05	0.18	0.14	0.09	-	<0.02	<0.1	0.18	0.59	0.16	0.10	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.30	0.08	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.15
SW002	0902_SW002_2101291230	29/01/2021	Normal		0.12	*2.38*	0.75	3.13	0.12	0.09	0.05	-	<0.02	<0.1	0.11	0.34	0.09	0.05	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.20	0.06	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.39
SW002	0902_SW002_2101291315	29/01/2021	Normal		0.14	*2.52*	0.89	3.41	0.13	0.12	0.06	-	<0.02	<0.1	0.12	0.34	0.06	0.06	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.25	0.06	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.78
SW002	0902_SW002_2101291400	29/01/2021	Normal		0.18	*3.39*	0.93	4.32	0.14	0.12	0.08	-	<0.02	<0.1	0.16	0.40	0.09	0.11	0.06	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.31	0.11	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.10
SW002	0902_SW002_2101291445	29/01/2021	Normal		1.05	*8.04*	1.93	9.97	0.26	0.23	0.20	-	0.04	0.2	0.52	1.13	0.39	1.61	1.42	0.27	0.05	<0.02	<0.05	<0.05	1.09	2.58	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	21.0
SW002	0902_SW002_2101291530	29/01/2021	Normal		0.44	*4.04*	0.94	4.98	0.13	0.12	0.10	-	0.02	<0.1	0.22	0.49	0.18	0.75	0.82	0.20	0.04	<0.02	<0.05	<0.05	0.49	1.56	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.5
SW002	0902_SW002_210505	5/05/2021	Normal		0.67	*6.88*	3.16	10.0	1.22	1.10	0.51	-	<0.02	0.4	0.74	2.17	0.47	0.20	0.11	0.04	<0.02	<0.02	<0.05	<0.05	0.26	0.17	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.1
SW002	0902_SW002_211109	9/11/2021	Normal		0.60	*16.4*	7.25	23.6	1.46	1.17	0.53	-	0.03	0.4	0.65	2.39	0.34	0.11	0.07	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	0.10	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	31.5
SW002	0902_QC200_211126	26/11/2021	Interlab_D		0.11	*4.3*	1.2	5.5	0.18	0.15	0.08	-	<0.02	0.2	0.2	0.34	0.07	0.05	0.03	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	6.8
SW002	0902_QC100_211126	26/11/2021	Field_D		0.11	*4.87*	0.89	5.76	0.24	0.14	0.08	-	0.02	0.1	0.18	0.40	0.05	0.04	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	7.15
SW002	0902_SW002_2111260820	26/11/2021	Normal		0.13	*6.06*	1.23	7.29	0.27	0.16	0.09	-	0.02	0.2	0.21	0.53	0.07	0.05	0.04	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	9.06
SW002	0902_SW002_2111260835	26/11/2021	Normal		0.11	*4.34*	0.91	5.25	0.25	0.15	0.07	-	<0.02	0.2	0.19	0.40	0.06	0.04	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	6.75
SW002	0902_SW002_2111260850	26/11/2021	Normal		0.10	*4.40*	0.89	5.29	0.25	0.14	0.07	-	<0.02	0.1	0.19	0.39	0.06	0.04	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	6.66
SW002	0902_SW002_2111260920	26/11/2021	Normal		0.13	*5.06*	1.15	6.21	0.29	0.19	0.08	-	0.02	0.2	0.24	0.50	0.07	0.05	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	8.01
SW002	0902_SW002_2111260950	26/11/2021	Normal		0.10	*4.18*	0.82	5.00	0.23	0.13	0.07	-	<0.02	0.1	0.18	0.37	0.06	0.04	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	6.30
SW002	0902_SW002_2111261020	26/11/2021	Normal		0.13	*5.54*	1.16	6.70	0.30	0.19	0.10	-	0.02	0.2	0.21	0.50	0.07	0.04	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	8.49
SW002	0902_SW002_2111261050	26/11/2021	Normal		0.12	*4.39*	1.01	5.40	0.26	0.16	0.08	-	<0.02	0.1	0.18	0.43	0.06	0.04	0.04	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	6.87
SW002	0902_SW002_2111261120	26/11/2021	Normal		0.13	*5.78*	1.17	6.95	0.29	0.18	0.10	-	0.02	0.2	0.19	0.48	0.07	0.05	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	8.69
SW002	0902_SW002_2111261220	26/11/2021	Normal		0.14	*6.00*	1.28	7.28	0.32	0.19	0.11	-	0.02	0.1	0.20	0.57	0.07	0.05	0.04	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	9.09
SW002	0902_SW002_2111261320	26/11/2021	Normal		0.15	*5.94*	1.45	7.39	0.35	0.21	0.11	-	0.02	0.2	0.22	0.58	0.08	0.05	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.02	<0.05	9.39
SW002	0902_SW002_211129	29/11/2021	Normal		0.95	*41.6*	15.0	56.6	1.86	1.89	1.00	-	0.02	0.4	0.86	3.58	0.49	0.10	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	67.8
SW002	0902_SW002_220118	18/01/2022	Normal		1.37	*46.6*	17.4	64.0	2.52	3.11	1.73	-	0.02	0.6	1.04	5.55	0.70	0.09	0.04	0.02	<0.02	<0.02	<0.05	<0.05	0.10	0.08	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	81.0
SW002	0902_SW002_2202211800	21/02/2022	Normal		1.30	*25.6*	10.7	36.3	1.54	1.36	0.50	-	0.05	0.6	1.09	3.87	0.84	0.61	0.63	0.16	0.05	<0.02	<0.05	<0.05	0.58	1.10	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	50.6
SW002	0902_SW002_2202212000	21/02/2022	Normal		0.30	*8.05*	2.91	11.0	0.51	0.37	0.16	-	<0.02	0.1	0.26	1.07	0.20	0.08	0.11	0.05	0.02	<0.02	<0.05	<0.05	0.12	0.21	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.5
SW002	0902_SW002_220221	21/02/2022	Normal		1.25	*21.2*	8.20	29.4	1.44	1.50	0.83	-	0.03	0.5	1.18	3.40	1.12	0.61	0.42	0.09	0.05	<0.02	<0.05	<0.05	0.79	1.41	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	44.0
SW002	0902_SW002_2202221000	22/02/2022	Normal		1.19	*25.0*	9.92	34.9	1.72	1.54	0.68	-	0.04	0.6	1.02	3.82	0.76	0.47	0.50	0.14	0.05	<0.02	<0.05	<0.05	0.44	1.07	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	49.0
SW002	0902_SW002_2202221200	22/02/2022	Normal		0.28	*8.23*	3.15	11.4	0.53	0.39	0.14	-	<0.02	0.1	0.24	1.03	0.18	0.07	0.09	0.05	0.02	<0.02	<0.05	<0.05	0.11	0.20	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.8
SW002	0902_SW002_2202221400	22/02/2022	Normal		0.27	*10.7*	2.53	13.2	0.42	0.30	0.17	-	0.04	0.2	0.29	0.84	0.16	0.17	0.22	0.09	0.03	<0.02	<0.05	<0.05	0.10	0.50	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.0
SW002	0902_SW002_2202221800	22/02/2022	Normal		0.66	*15.0*	7.81	22.8	1.72	1.41	0.37	-	0.02	0.4	0.61	2.88	0.40	0.14	0.14	0.06	0.02	<0.02	<0.05	<0.05	0.15	0.28	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	32.1
SW002	0902_SW002_2202222200	22/02/2022	Normal		0.62	*16.2*	8.62	24.8	1.69	1.44	0.53	-	0.03	0.4	0.62	2.96	0.41	0.14	0.15	0.07	0.03	<0.02	<0.05	<0.05	0.16	0.30	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.4
SW002	0902_SW002_2202230200	23/02/2022	Normal		0.66	*16.2*	8.80	25.0	1.75	1.49	0.44	-	0.02	0.4	0.64	3.09	0.43	0.15	0.14	0.06	0.02	<0.02	<0.05	<0.05	0.17	0.31	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.8
SW002	0902_SW002_2202231000	23/02/2022	Normal		1.10	*26.7*	10.7	37.4	2.27	1.84	0.81	-	0.10	0.7	1.11	3.68	0.72	0.54	0.66	0.26	0.12	0.02	<0.05	<0.05	0.35	1.68	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	53.4
SW002	0902_SW002_2202231400	23/02/2022	Normal		1.13	*30.8*	11.9	42.7	2.44	1.99	0.82	-	0.09	0.7	1.18	4.02	0.75	0.56	0.68	0.26	0.11	0.02	<0.05	<0.05	0.33	1.71	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	59.5
SW002	0902_SW002_220527	27/05/2022	Normal		2.98	*66.1*	40.5	107	4.80	5.75	2.96	-	0.02	1.4	<0.02	9.94	2.13	0.18	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.19	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	137
SW003	0902_SW003_040717	4/07/2017	Normal		3.34	*52.7*	23.4	76.1	3.95	3.44	1.70	-	<0.02	2.4	2.63	15.1	2.27	0.98	0.57	0.04	<0.02	<0.02	<0.05	<0.05	43.4	1.08	<0.05	0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	157
SW003	0902_QC212_180115	15/01/2018	Interlab_D		1.7	*14*	4.7	18.7	0.73	0.68	0.48	-	<0.02	0.60	1.5	2.6	1.4	0.97	0.30	0.02	<0.05	<0.1	<0.5	<0.01	2.9	0.44	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
SW003	0902_SW003_180115	15/01/2018	Normal		2.10	*22.2*	6.10	28.3	0.87	0.71	0.46	-	0.05	0.5	1.82	3.17	1.53	1.20	0.59	0.06	<0.02	<0.02	<0.05	<0.05	3.45	0.64	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	45.5
SW003	0902_SW003_270218	27/02/2018	Normal		2.22	*37.2*	16.2	53.4	3.47	2.70	1.33	-	<0.02	0.7	2.26	4.57	1.60	1.02	0.45	0.04	<0.02	<0.02	<0.05	<0.05	2.21	0.72	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	76.7
SW003	0902_QC120_270218	27/02/2018	Field_D		1.98	*35.0*	17.1	52.1	3.16	2.43	1.28	-	<0.02	0.8	2.08	4.08	1.37	0.84	0.41	0.03	<0.02	<0.02	<0.05	<0.05	2.31	0.65	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	73.5
SW003	0902_SW003_191111	11/11/2019	Normal		0.77	*15.8*	8.37	24.2	1.21	0.94	0.50	-	<0.02	0.4	0.82	2.24	0.37	0.33	0.26	0.05	<0.02	<0.02	<0.05	<0.05	0.44	0.24	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	32.7
SW003	0902_SW003_200514	14/05/2020	Normal		0.65	*21.2*	6.56	27.8	0.87	0.90	0.68	-	0.05	0.2	0.50	1.68	0.26	0.26	0.39	0.05	0.02	<0.02	<0.05	<0.05	0.24	0.34	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.9
SW003	0902_SW003_201113	13/11/2020	Normal		0.38	*15.7*	5.85	21.6	0.66	0.71	0.41	-	0.05	0.2	0.35	1.50	0.17	0.06	0.06	0.04	0.03	<0.02	<0.05	<0.05	0.06	0.09	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	26.3
SW003	0902_SW003_210505	5/05/2021	Normal		0.58	*6.41*	2.82	9.23	1.63	0.86	0.43	-	0.03	0.4	0.70	1.87	0.38	0.34	0.18	0.05	<0.02	<0.02	<0.05	<0.05	0.33	0.14	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.2
SW003	0902_QC211_211129	29/11/2021	Interlab_D		1.0	*29*	12	41	1.6	1.5	0.83	-	<0.02	0.67	0.93	3.6	0.58	0.12	0.04	<0.02	<0.05	<0.1	<0.5	<0.01	0.07	0.04	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	52
SW003	0902_SW003_211129	29/11/2021	Normal		0.84	*33.6*	13.5	47.1	1.63	1.71	0.89	-	0.03	0.4	0.80	3.18	0.45	0.10	0.04	0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	57.2

AECOM

Table T8 - Historical Surface Water Analytical Results

				PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids											PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
				Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR				0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water				10			2																											
PFAS NEMP 2020 Freshwater 99%				*19*	*0.00023*																													
Location Code	Field ID	Date	Sample Type																															
SW003	0902_SW003_220530	30/05/2022	Normal	3.49	*74.0*	54.9	129	5.86	5.64	3.20	-	0.07	1.4	3.28	12.4	2.04	0.23	0.09	0.05	0.03	<0.02	<0.05	<0.05	0.25	0.11	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	167
SW003	0902_QC109_220530	30/05/2022	Field_D	2.69	*60.6*	36.7	97.3	4.47	5.19	2.47	-	0.09	1.3	2.19	9.33	2.11	0.20	0.08	0.04	<0.02	<0.02	<0.05	<0.05	0.20	0.12	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	128
SW005	0902_SW005_040717	4/07/2017	Normal	<0.01	*0.08*	0.04	0.12	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
SW005	0902_SW005_180115	15/01/2018	Normal	<0.01	*0.20*	0.07	0.27	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27
SW005	0902_SW005_191108	8/11/2019	Normal	<0.01	*0.11*	0.02	0.13	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
SW005	0902_SW005_200514	14/05/2020	Normal	<0.01	*0.08*	0.07	0.15	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15
SW005	0902_QC106_200514	14/05/2020	Field_D	<0.01	*0.11*	0.07	0.18	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
SW005	0902_SW005_201112	12/11/2020	Normal	<0.01	*0.04*	0.02	0.06	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
SW005	0902_QC104_201112	12/11/2020	Field_D	<0.01	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
SW005	0902_SW005_210506	6/05/2021	Normal	<0.01	*0.05*	0.08	0.13	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
SW005	0902_SW005_211125	25/11/2021	Normal	<0.01	*0.16*	0.10	0.26	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29
SW005	0902_SW005_220526	26/05/2022	Normal	0.01	*0.19*	0.20	0.39	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
SW007	0902_SW007_040717	4/07/2017	Normal	0.01	*0.12*	0.11	0.23	<0.02	0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29
SW007	0902_SW007_180115	15/01/2018	Normal	<0.01	*0.10*	0.08	0.18	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
SW007	0902_SW007_191108	8/11/2019	Normal	<0.01	*0.12*	0.14	0.26	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.32
SW007	0902_SW007_200514	14/05/2020	Normal	<0.01	*0.05*	0.09	0.14	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
SW007	0902_QC206_200514	14/05/2020	Interlab_D	<0.01	*0.038*	0.064	0.102	0.017	0.012	<0.01	<0.01	<0.01	<0.05	<0.02	0.014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
SW007	0902_SW007_201112	12/11/2020	Normal	<0.01	*0.10*	0.06	0.16	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16
SW007	0902_QC204_201112	12/11/2020	Interlab_D	<0.01	*0.062*	0.042	0.104	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
SW007	0902_SW007_210506	6/05/2021	Normal	<0.01	*0.05*	0.07	0.12	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16
SW007	0902_SW007_211129	29/11/2021	Normal	<0.01	*0.07*	0.08	0.15	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
SW007	0902_SW007_220526	26/05/2022	Normal	<0.01	*0.10*	0.22	0.32	0.03	0.02	<0.02	-	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43
SW007	0902_QC105_220526	26/05/2022	Field_D	0.01	*0.09*	0.22	0.31	0.03	0.03	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43
SW008	0902_SW008_030717	3/07/2017	Normal	0.02	*0.24*	0.13	0.37	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.44
SW008	0902_SW008_180115	15/01/2018	Normal	0.02	*0.34*	0.07	0.41	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.46
SW008	0902_SW008_270218	27/02/2018	Normal	0.01	*0.67*	0.10	0.77	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.82
SW008	0902_SW008_191108	8/11/2019	Normal	0.05	*1.01*	0.35	1.36	0.04	0.04	0.03	-	<0.02	<0.1	0.06	0.14	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.84
SW008	0902_QC208_200513	13/05/2020	Interlab_D	0.01	*0.12*	0.14	0.26	0.06	0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35
SW008	0902_SW008_200513	13/05/2020	Normal	0.013	*0.072*	0.1	0.172	0.022	0.017	<0.01	<0.01	<0.01	<0.05	<0.02	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
SW008	0902_SW008_201112	12/11/2020	Normal	0.02	*0.20*	0.08	0.28	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.30
SW008	0902_SW008_210506	6/05/2021	Normal	0.02	*0.19*	0.35	0.54	0.07	0.06	<0.02	-	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.75
SW008	0902_SW008_211129	29/11/2021	Normal	<0.01	*0.08*	0.05	0.13	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
SW008	0902_QC113_211129	29/11/2021	Field_D	<0.01	*0.11*	0.05	0.16	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
SW008	0902_SW008_220526	26/05/2022	Normal	<0.01	*0.09*	0.24	0.33	0.04	0.04	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.41
SW009	0902_SW009_030717	3/07/2017	Normal	0.54	*16.3*	4.98	21.3	0.76	0.76	0.42	-	<0.02	<0.1	0.22	0.97	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.28	0.06	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	25.6
SW009	0902_SW009_180115	15/01/2018	Normal	0.06	*1.37*	0.45	1.82	0.06	0.05	0.03	-	<0.02	<0.1	0.06	0.15	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.42
SW009	0902_QC113_180115	15/01/2018	Field_D	0.06	*1.38*	0.44	1.82	0.05	0.05	0.04	-	<0.02	<0.1	0.05	0.13	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.15	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.38
SW009	0902_SW09_050218	2/02/2018	Normal	0.06	*1.10*	0.31	1.41	0.04	0.03	0.02	-	<0.02	<0.1	<0.02	0.13	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.83
SW009	0902_SW09_050218_a	2/02/2018	Normal	0.13	*2.91*	0.67	3.58	0.07	0.06	0.05	-	<0.02	<0.1	0.08	0.26	0.07	0.04	0.04	<0.02	<0.02	<0.02	<0.05	<0.05	0.23	0.07	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.68
SW009	0902_SW009_270218	27/02/2018	Normal	0.05	*2.91*	0.49	3.40	0.07	0.05	0.05	-	<0.02	<0.1	0.03	0.11	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.85
SW009	0902_SW009_191104	4/11/2019	Normal	0.05	*1.06*	0.35	1.41	0.04	0.05	0.03	-	<0.02	<0.1	0.06	0.13	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.91
SW009	0902_SW009_200514	14/05/2020	Normal	0.02	*0.53*	0.25	0.78	0.04	0.02	<0.02	-	0.02	<0.1	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.98
SW009	0902_QC109_200514	14/05/2020	Field_D	0.04	*0.81*	0.43	1.24	0.06	0.04	0.03	-	0.04	<0.1	0.04	0.11	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.62
SW009	0902_QC101_200611	11/06/2020	Field_D	0.13	*2.54*	1.20	3.74	0.13	0.22	0.09	-	<0.02	<0.1	0.13	0.50	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.54	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.56
SW009	0902_SW009_200611	11/06/2020	Normal	0.12	*2.46*	1.12	3.58	0.14	0.21	0.08	-	<0.02	<0.1	0.12	0.46	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.51	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.29
SW009	0902_QC204_200714	14/07/2020	Interlab_D	0.07	*2.3*	0.79	3.1	0.07	0.08	0.05	-	<0.02	0.08	0.08	0.19	0.04	0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.23	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	4.0
SW009	0902_QC205_200714	14/07/2020	Interlab_D	0.03	*0.95*	0.31	1.3	0.03	0.03	0.02	-	<0.02	0.03	0.03	0.07	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.04	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	1.5
SW009	0902_SW009_2007140650	14/07/2020	Normal	0.08	*1.99*	0.61	2.60	0.07	0.07	0.04	-	<0.02	<0.1	0.08	0.19	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.17	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.33

AECOM

Table T8 - Historical Surface Water Analytical Results

				PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids											PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
				Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR				0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water				10			2																											
PFAS NEMP 2020 Freshwater 99%				*19*	*0.00023*																													
Location Code	Field ID	Date	Sample Type																															
SW009	0902_SW009_2007140715	14/07/2020	Normal	0.08	*2.55*	0.66	3.21	0.07	0.07	0.05	-	<0.02	<0.1	0.07	0.18	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.18	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.95
SW009	0902_SW009_2007140730	14/07/2020	Normal	0.08	*2.20*	0.67	2.87	0.07	0.08	0.05	-	<0.02	<0.1	0.07	0.18	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.59
SW009	0902_SW009_2007140745	14/07/2020	Normal	0.07	*2.43*	0.60	3.03	0.06	0.07	0.04	-	0.02	<0.1	0.06	0.16	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.66
SW009	0902_SW009_2007140800	14/07/2020	Normal	0.03	*0.96*	0.29	1.25	0.04	0.03	<0.02	-	<0.02	<0.1	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.45
SW009	0902_SW009_2007140815	14/07/2020	Normal	0.03	*0.74*	0.25	0.99	0.04	0.02	<0.02	-	<0.02	<0.1	0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.16
SW009	0902_SW009_2007140845	14/07/2020	Normal	0.03	*0.73*	0.26	0.99	0.04	0.02	<0.02	-	<0.02	<0.1	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.18
SW009	0902_SW009_2007140915	14/07/2020	Normal	0.02	*0.69*	0.34	1.03	0.07	0.05	<0.02	-	<0.02	<0.1	0.04	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.33
SW009	0902_SW009_2007140945	14/07/2020	Normal	0.02	*0.67*	0.34	1.01	0.07	0.05	<0.02	-	<0.02	<0.1	0.04	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.32
SW009	0902_SW009_2007141045	14/07/2020	Normal	0.03	*1.14*	0.44	1.58	0.06	0.06	0.03	-	<0.02	<0.1	0.05	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.06
SW009	0902_SW009_2007141145	14/07/2020	Normal	0.04	*1.54*	0.45	1.99	0.06	0.05	0.03	-	<0.02	<0.1	0.05	0.15	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.51
SW009	0902_QC206_200807	7/08/2020	Interlab_D	0.25	*4.9*	2.6	7.6	0.30	0.29	0.17	-	<0.02	0.1	0.2	0.72	0.11	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.11	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	9.8
SW009	0902_QC207_200807	7/08/2020	Interlab_D	0.25	*5.0*	2.4	7.4	0.31	0.27	0.15	-	<0.02	0.1	0.2	0.68	0.11	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.10	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	9.6
SW009	0902_SW009_2008071245	7/08/2020	Normal	0.27	*4.74*	2.53	7.27	0.32	0.34	0.15	-	<0.02	0.1	0.21	0.73	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.58
SW009	0902_SW009_2008071300	7/08/2020	Normal	0.26	*5.28*	2.40	7.68	0.33	0.31	0.14	-	<0.02	0.1	0.21	0.72	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.94
SW009	0902_SW009_2008071315	7/08/2020	Normal	0.26	*5.73*	2.48	8.21	0.34	0.33	0.15	-	<0.02	0.1	0.20	0.74	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.5
SW009	0902_SW009_2008071330	7/08/2020	Normal	0.28	*4.70*	2.65	7.35	0.34	0.35	0.15	-	<0.02	0.1	0.21	0.78	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.78
SW009	0902_SW009_2008071345	7/08/2020	Normal	0.29	*5.76*	2.60	8.36	0.36	0.35	0.15	-	<0.02	0.1	0.23	0.79	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.8
SW009	0902_SW009_2008071415	7/08/2020	Normal	0.28	*7.92*	2.53	10.4	0.33	0.34	0.15	-	<0.02	0.1	0.21	0.77	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.8
SW009	0902_SW009_2008071445	7/08/2020	Normal	0.20	*4.99*	1.82	6.81	0.23	0.23	0.11	-	<0.02	<0.1	0.15	0.54	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.42
SW009	0902_SW009_2008071515	7/08/2020	Normal	0.15	*4.64*	1.30	5.94	0.17	0.16	0.08	-	0.02	<0.1	0.10	0.38	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.06
SW009	0902_SW009_2008071615	7/08/2020	Normal	0.15	*4.92*	1.34	6.26	0.18	0.17	0.08	-	0.03	<0.1	0.11	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.43
SW009	0902_SW009_2008071715	7/08/2020	Normal	0.20	*5.37*	1.95	7.32	0.26	0.23	0.12	-	0.03	<0.1	0.16	0.57	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.06
SW009	0902_SW009_200908	8/09/2020	Normal	0.19	*5.21*	1.47	6.68	0.18	0.18	0.17	-	<0.02	<0.1	0.12	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.09
SW009	0902_QC108_200908	8/09/2020	Field_D	0.18	*5.20*	1.49	6.69	0.16	0.19	0.14	-	<0.02	<0.1	0.11	0.39	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.04
SW009	0902_SW009_2010281650	28/10/2020	Normal	0.05	*2.98*	0.53	3.51	0.07	0.06	0.04	-	<0.02	<0.1	0.06	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.08
SW009	0902_SW009_201112	12/11/2020	Normal	0.14	*3.57*	1.47	5.04	0.19	0.19	0.10	-	<0.02	<0.1	0.13	0.41	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.13	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.40
SW009	0902_QC210_210129	29/01/2021	Interlab_D	0.15	*4.1*	1.4	5.6	0.16	0.16	0.14	-	<0.02	0.1	0.2	0.36	0.08	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.19	0.03	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	7.1
SW009	0902_QC211_210129	29/01/2021	Interlab_D	0.13	*3.7*	1.2	4.9	0.14	0.15	0.12	-	<0.02	0.1	0.1	0.30	0.06	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.17	0.03	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	6.2
SW009	0902_SW009_2101290845	29/01/2021	Normal	0.15	*3.67*	1.29	4.96	0.13	0.11	0.11	-	<0.02	0.1	0.10	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.27
SW009	0902_QC111_210129	29/01/2021	Field_D	0.15	*3.54*	1.31	4.85	0.14	0.11	0.11	-	<0.02	0.1	0.09	0.41	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.18
SW009	0902_SW009_2101290915	29/01/2021	Normal	0.15	*3.61*	1.30	4.91	0.14	0.11	0.11	-	<0.02	0.1	0.12	0.41	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.17	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.28
SW009	0902_SW009_2101291000	29/01/2021	Normal	0.14	*3.44*	1.28	4.72	0.14	0.11	0.11	-	<0.02	0.1	0.12	0.41	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.07
SW009	0902_SW009_2101291045	29/01/2021	Normal	0.14	*3.49*	1.22	4.71	0.13	0.10	0.11	-	<0.02	0.1	0.11	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.01
SW009	0902_SW009_2101291130	29/01/2021	Normal	0.15	*4.17*	1.27	5.44	0.13	0.11	0.10	-	<0.02	<0.1	0.12	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.17	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.67
SW009	0902_QC112_210129	29/01/2021	Field_D	0.14	*3.58*	1.20	4.78	0.13	0.10	0.10	-	<0.02	<0.1	0.11	0.38	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.96
SW009	0902_SW009_2101291215	29/01/2021	Normal	0.14	*3.70*	1.22	4.92	0.13	0.10	0.07	-	<0.02	<0.1	0.11	0.38	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.17	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.08
SW009	0902_SW009_2101291300	29/01/2021	Normal	0.11	*3.31*	1.14	4.45	0.12	0.10	0.10	-	<0.02	<0.1	0.10	0.36	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.55
SW009	0902_SW009_2101291345	29/01/2021	Normal	0.11	*3.44*	1.01	4.45	0.11	0.11	0.08	-	<0.02	<0.1	0.10	0.28	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.14	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.41
SW009	0902_SW009_2101291430	29/01/2021	Normal	0.07	*2.60*	0.73	3.33	0.09	0.08	0.06	-	<0.02	<0.1	0.06	0.18	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.98
SW009	0902_SW009_2101291515	29/01/2021	Normal	0.08	*3.28*	0.83	4.11	0.09	0.09	0.07	-	<0.02	<0.1	0.07	0.20	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.82
SW009	0902_SW009_210506	6/05/2021	Normal	0.14	*3.84*	1.73	5.57	0.27	0.24	0.11	-	<0.02	<0.1	0.11	0.44	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.95
SW009	0902_QC201_211126	26/11/2021	Interlab_D	0.01	*0.46*	0.11	0.57	<0.01	<0.01	0.01	-	<0.02	<0.02	<0.02	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.61
SW009	0902_SW009_2111260905	26/11/2021	Normal	0.01	*0.24*	0.06	0.30	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.33
SW009	0902_SW009_2111260920	26/11/2021	Normal	<0.01	*0.29*	0.07	0.36	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.39
SW009	0902_SW009_2111260950	26/11/2021	Normal	0.02	*0.60*	0.12	0.72	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.77
SW009	0902_SW009_2111261020	26/11/2021	Normal	0.02	*0.92*	0.09	1.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.06
SW009	0902_SW009_2111261050	26/11/2021	Normal	0.01	*0.39*	0.09	0.48	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.52
SW009	0902_SW009_2111261120	26/11/2021	Normal	0.01	*0.72*	0.08	0.80	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.83

AECOM

Table T8 - Historical Surface Water Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids											PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water					10			2																											
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																													
Location Code	Field ID	Date	Sample Type																																
SW009	0902_SW009_2111261220	26/11/2021	Normal		<0.01	*0.14*	0.03	0.17	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
SW009	0902_SW009_2111261320	26/11/2021	Normal		<0.01	*0.15*	0.06	0.21	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23
SW009	0902_QC101_211126	26/11/2021	Field_D		<0.01	*0.32*	0.10	0.42	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.47
SW009	0902_SW009_2111260835	26/11/2021	Normal		0.01	*0.38*	0.11	0.49	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56
SW009	0902_SW009_2111260850	26/11/2021	Normal		<0.01	*0.30*	0.08	0.38	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43
SW009	0902_QC214_211129	29/11/2021	Interlab_D		0.15	*12*	1.7	14	0.16	0.18	0.13	-	<0.02	0.2	0.09	0.32	0.05	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.02	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	15
SW009	0902_SW009_211129	29/11/2021	Normal		0.14	*6.19*	1.79	7.98	0.23	0.16	0.11	-	<0.02	<0.1	0.10	0.46	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.25
SW009	0902_SW009_220118	18/01/2022	Normal		0.18	*4.42*	2.30	6.72	0.28	0.27	0.15	-	<0.02	<0.1	0.12	0.59	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.44
SW009	0902_SW009_2202211800	21/02/2022	Normal		0.08	*2.75*	0.92	3.67	0.12	0.10	0.04	-	<0.02	<0.1	0.07	0.27	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.51
SW009	0902_SW009_2202212000	21/02/2022	Normal		0.11	*3.32*	1.06	4.38	0.14	0.11	0.05	-	<0.02	<0.1	0.08	0.31	0.05	0.03	0.04	0.04	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	0.07	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.53
SW009	0902_SW009_2202220800	22/02/2022	Normal		0.09	*2.66*	0.99	3.65	0.14	0.10	0.04	-	<0.02	<0.1	0.07	0.29	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.53
SW009	0902_SW009_2202221200	22/02/2022	Normal		0.03	*0.91*	0.46	1.37	0.05	0.04	0.03	-	<0.02	<0.10	<0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.63
SW009	0902_SW009_2202221400	22/02/2022	Normal		0.04	*1.55*	0.48	2.03	0.07	0.05	0.02	-	<0.02	<0.1	0.04	0.15	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.52
SW009	0902_SW009_2202221600	22/02/2022	Normal		0.04	*1.30*	0.58	1.88	0.09	0.06	<0.02	-	<0.02	<0.1	0.04	0.15	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.36
SW009	0902_SW009_2202230000	23/02/2022	Normal		0.05	*1.44*	0.68	2.12	0.11	0.08	0.03	-	<0.02	<0.1	0.04	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.72
SW009	0902_SW009_2202230200	23/02/2022	Normal		0.06	*1.68*	0.79	2.47	0.12	0.09	0.02	-	<0.02	<0.1	0.06	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.15
SW009	0902_SW009_2202231000	23/02/2022	Normal		0.05	*1.67*	0.66	2.33	0.11	0.08	0.02	-	<0.02	<0.1	0.05	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.93
SW009	0902_SW009_2202231400	23/02/2022	Normal		0.07	*2.36*	0.91	3.27	0.15	0.10	0.04	-	<0.02	<0.1	0.07	0.27	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.08
SW009	0902_SW009_220526	26/05/2022	Normal		0.42	*9.47*	5.27	14.7	0.70	0.73	0.32	-	<0.02	0.2	0.26	1.44	0.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.0
SW011	0902_QC205_040717	4/07/2017	Interlab_D		0.37	*9.0*	3.6	12.6	0.51	0.49	0.39	-	<0.02	0.2	0.23	0.95	0.14	0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.73	0.03	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
SW011	0902_SW011_040717	4/07/2017	Normal		0.53	*16.0*	6.28	22.3	0.77	0.74	0.46	-	<0.02	<0.1	0.27	1.17	0.24	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.72	0.07	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	27.3
SW011	0902_QC213_180115	15/01/2018	Interlab_D		0.38	*12*	2.7	14.7	0.37	0.35	0.38	-	<0.02	0.30	0.41	1.0	0.23	0.04	0.03	<0.02	<0.05	<0.1	<0.5	<0.01	0.39	0.15	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
SW011	0902_SW011_180115	15/01/2018	Normal		0.52	*16.0*	3.40	19.4	0.42	0.38	0.34	-	0.03	0.2	0.50	1.24	0.23	0.05	0.05	<0.02	<0.02	<0.02	<0.05	<0.05	0.40	0.21	<0.05	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	24.0
SW011	0902_QC220_270218	27/02/2018	Interlab_D		0.08	*2.7*	0.69	3.39	0.1	0.10	0.08	-	<0.02	0.09	0.1	0.19	0.04	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.1	0.02	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
SW011	0902_SW011_270218	27/02/2018	Normal		0.10	*4.21*	0.74	4.95	0.09	0.08	0.09	-	<0.02	<0.1	0.07	0.16	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.68
SW011	0902_SW011_191108	8/11/2019	Normal		0.10	*3.26*	0.77	4.03	0.08	0.09	0.06	-	<0.02	<0.1	0.13	0.27	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.18	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.98
SW011	0902_SW011_200515	15/05/2020	Normal		0.13	*4.56*	1.35	5.91	0.12	0.16	0.11	-	<0.02	<0.1	0.12	0.32	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.93
SW011	0902_SW011_201112	12/11/2020	Normal		0.12	*4.02*	1.30	5.32	0.16	0.16	0.10	-	<0.02	<0.1	0.11	0.37	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.52
SW011	0902_QC204_210507	7/04/2021	Interlab_D		0.024	*1.3*	0.33	1.63	0.054	0.041	0.019	<0.01	<0.01	<0.05	0.027	0.08	0.015	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	0.022	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
SW011	0902_SW011_210507	7/05/2021	Normal		0.04	*1.38*	0.39	1.77	0.07	0.06	0.04	-	<0.02	<0.1	0.04	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.15
SW011	0902_SW011_211129	29/11/2021	Normal		0.14	*6.22*	1.75	7.97	0.19	0.17	0.12	-	<0.02	<0.1	0.10	0.42	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.16
SW011	0902_QC205_220527	27/05/2022	Interlab_D		0.31	*7.9*	3.1	11	0.49	0.46	0.23	-	<0.02	0.1	0.2	0.86	0.15	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.06	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	14
SW011	0902_SW011_220527	27/05/2022	Normal		0.37	*12.0*	5.28	17.3	0.61	0.57	0.40	-	<0.02	0.1	0.32	1.27	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	21.2
SW013	0902_SW013_030717	3/07/2017	Normal		0.10	*0.76*	2.23	2.99	0.36	0.34	0.05	-	<0.02	0.2	0.10	0.32	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.55
SW013	0902_SW013_180115	15/01/2018	Normal		0.17	*0.87*	3.48	4.35	0.68	0.50	0.11	-	<0.02	0.7	0.26	0.90	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.85
SW013	0902_SW013_191108	8/11/2019	Normal		<0.01	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
SW013	0902_SW013_200514	14/05/2020	Normal		0.01	*0.18*	0.22	0.40	0.03	0.02	<0.02	-	<0.02	<0.1	0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.52
SW013	0902_SW013_201112	12/11/2020	Normal		0.01	*0.20*	0.22	0.42	0.03	0.02	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.52
SW013	0902_SW013_210506	6/05/2021	Normal		<0.01	*0.16*	0.14	0.30	<0.02	<0.02	<0.02	-	<0.02	0.1	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.45
SW013	0902_SW013_211129	29/11/2021	Normal		0.01	*0.20*	0.19	0.39	0.04	0.02	<0.02	-	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.52
SW013	0902_QC115_211129	29/11/2021	Field_D		0.01	*0.19*	0.22	0.41	0.03	0.02	<0.02	-	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56
SW013	0902_SW013_220527	27/05/2022	Normal		0.01	*0.17*	0.32	0.49	0.08	0.04	<0.02	-	<0.02	0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.78
SW014	0902_SW014_030717	3/07/2017	Normal		0.03	*0.44*	0.33	0.77	0.05	0.04	<0.02	-	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.96
SW014	0902_SW014_180115	15/01/2018	Normal		0.03	*0.30*	0.29	0.59	0.03	0.02	<0.02	-	<0.02	<0.1	0.04	0.09	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.83
SW014	0902_SW014_191108	8/11/2019	Normal		0.02	*0.07*	1.30	1.37	0.35	0.35	0.02	-	<0.02	<0.1	0.06	0.37	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.56
SW014	0902_QC104_191108	8/11/2019	Field_D		0.02	*0.22*	0.15	0.37	<0.02	<0.02	<0.02	-	<0.02	<0.1	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.46
SW014	0902_SW014_200514	14/05/2020	Normal		0.01	*0.17*	0.08	0.25	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.26
SW014	0902_SW014_201112	12/11/2020	Normal		<0.01	*0.11*	0.04	0.15	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15

AECOM

Table T8 - Historical Surface Water Analytical Results

				PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids											PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
				Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR				0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water				10			2																											
PFAS NEMP 2020 Freshwater 99%				*19*	*0.00023*																													
Location Code	Field ID	Date	Sample Type																															
SW014	0902_SW014_210506	6/05/2021	Normal	0.15	*0.60*	3.46	4.06	0.40	0.41	0.10	-	<0.02	0.1	0.39	1.94	0.11	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.68
SW014	0902_QC102_210506	6/05/2021	Field_D	0.20	*0.80*	4.80	5.60	0.45	0.64	0.13	-	<0.02	0.1	0.46	2.52	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.2
SW014	0902_SW014_211125	25/11/2021	Normal	0.02	*0.34*	0.33	0.67	0.06	0.03	<0.02	-	<0.02	<0.1	0.02	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.95
SW014	0902_SW014_220526	26/05/2022	Normal	0.11	*1.24*	2.28	3.52	0.22	0.22	0.08	-	<0.02	<0.1	0.18	0.85	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.24
SW015	0902_SW015_030717	3/07/2017	Normal	0.02	*0.39*	0.49	0.88	0.06	0.06	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.06
SW015	0902_SW015_270218	27/02/2018	Normal	<0.01	*0.16*	0.07	0.23	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23
SW015	0902_SW015_200514	14/05/2020	Normal	<0.01	*0.26*	0.16	0.42	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
SW015	0902_SW015_201112	12/11/2020	Normal	<0.01	*0.09*	0.08	0.17	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
SW015	0902_SW015_210505	5/05/2021	Normal	<0.01	*0.09*	0.13	0.22	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.22
SW015	0902_SW015_211129	29/11/2021	Normal	<0.01	*0.08*	0.13	0.21	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.25
SW015	0902_SW015_220530	30/05/2022	Normal	<0.01	*0.24*	0.29	0.53	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.53
SW016	0902_SW016_030717	3/07/2017	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW016	0902_SW016_180115	15/01/2018	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW016	0902_SW016_270218	27/02/2018	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW016	0902_SW016_191114	14/11/2019	Normal	<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW016	0902_QC203_191114	14/11/2019	Interlab_D	<0.01	*0.023*	0.010	0.033	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.05	<0.02	<0.01	<0.05	-		
SW016	0902_SW016_200514	14/05/2020	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW016	0902_SW016_201113	13/11/2020	Normal	<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW016	0902_QC200_210423	23/04/2021	Interlab_D	<0.01	*0.03*	0.03	0.06	0.01	<0.01	<0.01	-	<0.02	0.02	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.1
SW016	0902_SW016_210423	23/04/2021	Normal	<0.01	*0.02*	0.03	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
SW016	0902_SW016_210505	5/05/2021	Normal	<0.01	*0.03*	0.02	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
SW016	0902_SW016_211129	29/11/2021	Normal	<0.01	*0.01*	<0.01	0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW016	0902_SW016_220530	30/05/2022	Normal	<0.01	*0.06*	0.17	0.23	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28
SW018	0902_SW018_040717	4/07/2017	Normal	<0.01	*0.05*	0.03	0.08	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
SW018	0902_SW018_180115	15/01/2018	Normal	<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW018	0902_SW018_270218	27/02/2018	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW018	0902_SW018_191125	25/11/2019	Normal	<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW018	0902_QC111_191125	25/11/2019	Field_D	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW018	0902_SW018_200515	15/05/2020	Normal	<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW018	0902_SW018_201113	13/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW018	0902_SW018_210506	6/05/2021	Normal	0.04	*0.62*	0.54	1.16	0.05	0.07	0.03	-	<0.02	<0.1	0.03	0.14	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.54
SW018	0902_QC104_210506	6/05/2021	Field_D	0.04	*0.72*	0.62	1.34	0.07	0.06	0.04	-	<0.02	<0.1	0.02	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.75
SW018	0902_SW018_211129	29/11/2021	Normal	<0.01	*0.11*	0.04	0.15	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
SW018	0902_QC211_220531	31/05/2022	Interlab_D	0.02	*0.29*	0.19	0.48	0.03	0.02	<0.01	-	<0.02	0.03	<0.02	0.05	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.64
SW018	0902_SW018_220531	31/05/2022	Normal	0.02	*0.44*	0.34	0.78	0.05	0.04	<0.02	-	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.98
SW019	0902_SW019_040717	4/07/2017	Normal	0.02	*0.07*	0.04	0.11	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15
SW019	0902_SW019_180115	15/01/2018	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW019	0902_SW019_191125	25/11/2019	Normal	0.02	*0.03*	0.02	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10
SW019	0902_SW019_200515	15/05/2020	Normal	0.01	*0.04*	0.03	0.07	0.03	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
SW019	0902_SW019_201113	13/11/2020	Normal	<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW019	0902_SW019_210507	7/05/2021	Normal	<0.01	*0.04*	0.03	0.07	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
SW019	0902_SW019_211129	29/11/2021	Normal	<0.01	*0.02*	0.01	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW019	0902_SW019_220531	31/05/2022	Normal	<0.01	*0.04*	0.03	0.07	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
SW019	0902_QC111_220531	31/05/2022	Field_D	<0.01	*0.03*	0.03	0.06	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
SW020	0902_SW20_131117	13/11/2017	Normal	0.02	*0.06*	0.02	0.08	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
SW020	0902_SW020_180115	15/01/2018	Normal	0.03	*0.06*	<0.02	0.06	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
SW020	0902_SW020_191125	25/11/2019	Normal	0.02	*0.05*	0.02	0.07	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
SW020	0902_SW020_200515	15/05/2020	Normal	0.01	*0.07*	0.03	0.10	0.03	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14

Table T8 - Historical Surface Water Analytical Results

				PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids											PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
				Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR				0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water				10			2																											
PFAS NEMP 2020 Freshwater 99%				*19*	*0.00023*																													
Location Code	Field ID	Date	Sample Type																															
SW020	0902_SW020_201113	13/11/2020	Normal	<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW020	0902_SW020_210507	7/05/2021	Normal	0.01	*0.17*	0.02	0.19	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.20
SW020	0902_SW020_211129	29/11/2021	Normal	<0.01	*0.02*	0.01	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW020	0902_SW020_220531	31/05/2022	Normal	0.01	*0.07*	0.04	0.11	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
SW022	0902_SW22_131117	13/11/2017	Normal	0.01	*0.14*	0.05	0.19	<0.02	0.03	<0.02	-	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.31
SW022	0902_SW022_180115	15/01/2018	Normal	0.01	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10
SW022	0902_QC109_191115	15/11/2019	Field_D	0.04	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
SW022	0902_SW022_191115	15/11/2019	Normal	0.04	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
SW022	0902_SW022_200515	15/05/2020	Normal	0.02	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
SW022	0902_SW022_201113	13/11/2020	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW022	0902_SW022_210505	5/05/2021	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW022	0902_SW022_211129	29/11/2021	Normal	<0.01	*0.03*	0.02	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
SW022	0902_QC209_220530	30/05/2022	Interlab_D	<0.01	*0.03*	0.05	0.07	<0.01	<0.01	<0.01	-	<0.02	0.04	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.12
SW022	0902_SW022_220530	30/05/2022	Normal	<0.01	*0.04*	0.07	0.11	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
SW023	0902_SW23_131117	13/11/2017	Normal	0.02	*0.38*	0.10	0.48	<0.02	0.03	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.58
SW023	0902_QC181_131117	13/11/2017	Field_D	0.02	*0.38*	0.10	0.48	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56
SW023	0902_SW023_180115	15/01/2018	Normal	0.03	*0.49*	0.19	0.68	0.03	0.02	<0.02	-	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.83
SW023	0902_QC112_180115	15/01/2018	Field_D	0.03	*0.54*	0.20	0.74	0.02	0.02	<0.02	-	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.88
SW023	0902_SW023_191111	11/11/2019	Normal	0.01	*0.23*	0.06	0.29	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.33
SW023	0902_SW023_200515	15/05/2020	Normal	0.01	*0.10*	0.06	0.16	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
SW023	0902_SW023_201113	13/11/2020	Normal	<0.01	*0.07*	0.03	0.10	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10
SW023	0902_SW023_210506	6/05/2021	Normal	0.08	*1.66*	0.81	2.47	0.11	0.12	0.08	-	<0.02	<0.1	0.05	0.21	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.16
SW023	0902_SW023_211125	25/11/2021	Normal	0.01	*0.30*	0.13	0.43	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.51
SW023	0902_QC108_211125	25/11/2021	Field_D	0.01	*0.29*	0.12	0.41	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.48
SW023	0902_SW023_220531	31/05/2022	Normal	0.03	*0.46*	0.37	0.83	0.05	0.04	<0.02	-	<0.02	<0.1	0.03	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.06
SW024	0902_SW24_131117	13/11/2017	Normal	<0.01	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
SW024	0902_SW024_190118	19/01/2018	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW024	0902_SW024_191115	15/11/2019	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW024	0902_SW024_200514	14/05/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW024	0902_SW024_201112	12/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW024	0902_SW024_210505	5/05/2021	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW024	0902_SW024_211126	26/11/2021	Normal	<0.01	*0.01*	<0.01	0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW024	0902_QC212_220531	31/05/2022	Interlab_D	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	<0.01
SW024	0902_SW024_220531	31/05/2022	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW030	0902_QC280_131117	17/11/2013	Interlab_D	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
SW030	0902_SW30_131117	13/11/2017	Normal	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW030	0902_SW030_180118	18/01/2018	Normal	<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW030	0902_SW030_270218	27/02/2018	Normal	<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW030	0902_SW030_191115	15/11/2019	Normal	<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW030	0902_SW030_200515	15/05/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW030	0902_SW030_201113	13/11/2020	Normal	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW030	0902_SW030_210507	7/05/2021	Normal	<0.01	*0.04*	0.02	0.06	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
SW030	0902_SW030_211129	29/11/2021	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW030	0902_SW030_220531	31/05/2022	Normal	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW030	0902_QC112_220531	31/05/2022	Field_D	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW032	0902_SW32_131117	13/11/2017	Normal	0.27	*3.06*	1.69	4.75	0.29	0.26	0.10	-	<0.02	<0.1	0.30	0.89	0.18	0.11	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.66	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.84
SW032	0902_SW32_131117	13/11/2017	Normal	0.27	*3.06*	1.69	4.75	0.29	0.26	0.10	-	<0.02	<0.1	0.30	0.89	0.18	0.11	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.66	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.84
SW032	0902_SW032_200512	12/05/2020	Normal	0.12	*2.76*	1.07	3.83	0.18	0.14	0.05	-	<0.02	<0.1	0.14	0.36	0.08	0.05	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.97

Table T8 - Historical Surface Water Analytical Results

					PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer				PFAS - Perfluoroalkyl Sulfonamides							
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water					10			2																											
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																													
Location Code	Field ID	Date	Sample Type																																
SW032	0902_SW032_201111	11/11/2020	Normal		0.07	*2.41*	0.79	3.20	0.12	0.09	0.05	-	<0.02	<0.1	0.08	0.24	0.04	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.92
SW032	0902_SW032_210504	4/05/2021	Normal		0.04	*0.76*	0.62	1.38	0.12	0.09	0.03	-	<0.02	<0.1	0.06	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.90
SW032	0902_SW032_211214	14/12/2021	Normal		0.07	*1.62*	0.92	2.54	0.15	0.12	0.05	-	<0.02	<0.1	0.07	0.24	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.28
SW035	0902_SW035_161117	16/11/2017	Normal		<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW035	0902_SW035_180115	15/01/2018	Normal		<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW035	0902_SW035_191115	15/11/2019	Normal		<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW035	0902_SW035_200514	14/05/2020	Normal		<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW035	0902_SW035_201113	13/11/2020	Normal		<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW035	0902_SW035_210506	6/05/2021	Normal		<0.01	*0.05*	<0.02	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
SW035	0902_SW035_211125	25/11/2021	Normal		<0.01	*0.03*	0.02	0.05	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
SW035	0902_SW035_220530	30/05/2022	Normal		<0.01	*0.03*	0.05	0.08	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
SW037	0902_SW037_271117	27/11/2017	Normal		0.01	*0.12*	0.06	0.18	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24
SW037	0902_SW037_180115	15/01/2018	Normal		0.03	*0.76*	0.07	0.83	<0.02	<0.02	<0.02	-	<0.02	<0.1	0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.94
SW037	0902_SW037_270218	27/02/2018	Normal		0.02	*0.32*	0.04	0.36	0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43
SW037	0902_SW037_191111	11/11/2019	Normal		0.01	*0.19*	0.04	0.23	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27
SW037	0902_SW037_200514	14/05/2020	Normal		0.02	*0.31*	0.16	0.47	0.03	0.02	<0.02	-	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.67
SW037	0902_SW037_201113	13/11/2020	Normal		0.01	*0.15*	0.07	0.22	0.10	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.38
SW037	0902_SW037_210505	5/05/2021	Normal		<0.01	*0.19*	0.07	0.26	<0.02	<0.02	<0.02	-	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28
SW037	0902_SW037_211129	29/11/2021	Normal		0.01	*0.42*	0.13	0.55	0.04	<0.02	<0.02	-	<0.02	<0.1	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.67
SW037	0902_SW037_220527	27/05/2022	Normal		0.02	*0.56*	0.27	0.83	0.03	0.02	<0.02	-	<0.02	<0.1	0.03	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.02

AECOM

Table T9 - Historical Sediment Analytical Results

				PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							
				Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorododecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001
Location Code	Field ID	Date	Sample Type																															
SD001	0902_SD001_030717	3/07/2017	Normal	0.0348	2.05	0.0175	2.07	0.0003	0.0005	0.0052	-	0.0329	0.002	0.0032	0.0139	0.0071	0.228	1.12	1.03	0.150	0.0121	0.0031	<0.0005	0.508	4.73	0.0390	0.0104	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	10.0
SD001	0902_QC108_030717	3/07/2017	Field_D	0.634	38.9	0.671	39.6	<0.0100	0.0135	0.183	-	0.318	<0.010	0.0135	0.508	0.105	3.25	22.9	8.38	4.46	0.631	0.249	<0.0100	11.0	57.7	0.497	0.527	<0.0250	<0.0100	<0.0250	<0.0250	<0.0100	<0.0250	151
SD001	0902_SD001_270218	27/02/2018	Normal	0.252	5.01	0.0253	5.04	0.0006	0.0006	0.0221	-	0.0411	0.002	0.0056	0.0319	0.0413	1.16	2.76	2.06	0.825	0.105	0.0293	<0.0005	0.532	5.66	0.0065	0.0557	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	18.6
SD001	0902_SD001_191104	4/11/2019	Normal	0.0565	14.6	0.0160	14.6	0.0051	<0.0050	0.0244	-	0.153	<0.005	0.0067	0.0219	0.0152	0.729	13.9	12.6	3.42	0.250	0.0506	<0.0050	0.124	19.9	0.351	0.185	<0.0125	<0.0050	<0.0125	<0.0125	<0.0050	<0.0125	66.4
SD001	0902_QC101_191104	4/11/2019	Field_D	0.0435	7.84	0.0124	7.85	<0.0050	<0.0050	0.0171	-	0.106	<0.005	<0.0050	0.0171	0.0109	0.464	8.87	8.01	2.59	0.177	0.0373	<0.0050	0.0995	13.5	0.284	0.142	<0.0125	<0.0050	<0.0125	<0.0125	<0.0050	<0.0125	42.2
SD001	0902_SD001_200515	15/05/2020	Normal	0.0938	6.56	0.0255	6.58	0.0015	0.0017	0.0175	-	0.250	0.002	0.0097	0.0289	0.0297	0.607	5.32	5.83	3.93	0.592	0.424	<0.0005	0.119	6.83	0.101	0.155	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	0.0067	30.9
SD001	0902_SD001_201113	13/11/2020	Normal	0.0622	5.84	0.0149	5.85	0.0008	0.0008	0.0153	-	0.0903	0.003	0.0056	0.0133	0.0136	0.732	3.14	2.72	1.90	0.292	0.167	<0.0005	0.0683	6.32	0.0541	0.0694	<0.0005	0.0009	<0.0005	<0.0005	<0.0002	<0.0005	21.5
SD001	0902_QC107_201113	13/11/2020	Field_D	0.0310	2.70	0.0081	2.71	0.0005	0.0005	0.0074	-	0.0393	0.002	0.0031	0.0071	0.0085	0.363	1.46	1.34	0.876	0.140	0.0659	<0.0005	0.0358	2.97	0.0354	0.0408	<0.0005	0.0003	<0.0005	<0.0005	<0.0002	<0.0005	10.1
SD001	0902_QC107_210507	7/05/2021	Field_D	0.0493	2.78	0.0498	2.83	0.0031	0.0031	0.0422	-	0.318	<0.005	0.0067	0.0146	0.0146	0.494	3.81	5.53	3.95	0.417	0.117	<0.0010	0.0458	5.22	0.323	0.121	<0.0025	<0.0010	<0.0025	<0.0025	<0.0010	0.0899	23.4
SD001	0902_SD001_210507	7/05/2021	Normal	0.0124	1.98	0.0135	1.99	0.0012	0.0006	0.0086	-	0.0576	<0.002	0.0035	0.0068	0.0051	0.112	1.10	1.22	0.770	0.159	0.0488	<0.0005	0.0158	1.81	0.0914	0.0251	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	0.0127	7.45
SD001	0902_QC209_211126	26/11/2021	Interlab_D	0.11	11	0.093	11	0.0052	0.0068	0.028	-	0.28	0.0042	0.011	0.029	0.037	0.66	5.6	8.8	11	2.5	1.2	<0.0001	0.12	8.5	1.1	0.37	0.002	0.0027	<0.001	<0.001	0.0024	<0.005	52
SD001	0902_SD001_211126	26/11/2021	Normal	0.104	14.3	0.0885	14.4	0.0054	0.0075	0.0282	-	0.322	<0.001	0.0105	0.0366	0.0339	0.708	6.81	10.7	8.99	1.52	1.01	<0.0005	0.132	5.35	0.718	0.183	<0.0005	0.0024	<0.0005	<0.0005	0.0020	<0.0005	51.1
SD001	0902_SD001_220524	24/05/2022	Normal	0.0315	4.24	0.0610	4.30	0.0037	0.0050	0.0096	-	0.218	0.002	0.0061	0.0120	0.0098	0.0817	0.490	2.94	3.72	0.477	0.207	<0.0005	0.0220	1.03	0.244	0.0693	<0.0005	0.0014	<0.0005	<0.0005	<0.0002	0.0524	13.9
SD001	0902_QC101_220524	24/05/2022	Field_D	0.0634	6.59	0.0980	6.69	0.0076	0.0090	0.0236	-	0.349	0.004	0.0105	0.0263	0.0220	0.127	0.891	3.50	4.41	0.622	0.389	<0.0005	0.0539	1.83	0.0688	0.0903	<0.0005	0.0018	<0.0005	<0.0005	<0.0002	0.0785	19.3
SD002	0902_SD002_040717	4/07/2017	Normal	0.0298	1.68	0.237	1.92	0.0023	0.0032	0.0157	-	0.0177	0.002	0.0059	0.0097	0.0076	0.0133	0.0026	0.0060	0.0114	0.0017	0.0032	<0.0005	0.0742	0.0424	0.0023	0.0378	<0.0005	<0.0002	<0.0005	<0.0005	0.0002	<0.0005	2.21
SD002	0902_SD002_180115	15/01/2018	Normal	0.0039	0.461	0.0160	0.477	0.0014	0.0018	0.0034	-	0.0051	<0.001	0.0016	0.0030	0.0019	0.0050	0.0063	0.0059	0.0057	0.0018	0.0037	<0.0005	0.0179	0.0112	0.0008	0.0153	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.573
SD002	0902_SD002_191104	4/11/2019	Normal	0.0069	0.404	0.0394	0.443	0.0028	0.0029	0.0036	-	0.0179	0.003	0.0088	0.0062	0.0028	0.0072	0.0150	0.0134	0.0143	0.0054	0.0049	<0.0005	0.0031	0.0051	0.0108	0.0262	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.604
SD002	0902_SD002_200514	14/05/2020	Normal	0.0059	0.311	0.0446	0.356	0.0047	0.0045	0.0047	-	0.0034	0.004	0.0054	0.0106	0.0026	0.0054	0.0117	0.0115	0.0126	0.0024	<0.0025	<0.0010	<0.0010	0.0048	0.0020	0.0173	<0.0025	<0.0010	<0.0025	<0.0025	<0.0010	<0.0025	0.469
SD002	0902_SD002_201113	13/11/2020	Normal	0.0046	0.345	0.0286	0.374	0.0031	0.0024	0.0036	-	0.0031	<0.001	0.0022	0.0080	<0.0002	0.0042	0.0189	0.0105	0.0075	0.0020	<0.0005	<0.0005	0.0018	0.0030	<0.0005	0.0131	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.462
SD002	0902_QC207_201113	13/11/2020	Interlab_D	0.0045	0.51	0.035	0.545	0.0027	0.0026	0.0037	0.002	0.0048	<0.002	0.0041	0.0058	0.0021	0.0045	0.022	0.016	0.017	0.0043	0.004	<0.001	0.0016	0.0042	<0.002	0.015	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	-
SD002	0902_SD002_210505	5/05/2021	Normal	0.0107	0.599	0.0599	0.659	0.0036	0.0051	0.0083	-	0.0122	<0.005	0.0059	0.0074	0.0033	0.0107	0.0198	0.0282	0.0344	0.0092	0.0056	<0.0010	0.0021	0.0048	0.0043	0.0186	<0.0025	<0.0010	<0.0025	<0.0025	<0.0010	<0.0025	0.853
SD002	0902_SD002_211129	29/11/2021	Normal	0.0028	0.593	0.0379	0.631	0.0028	0.0028	0.0060	-	0.0121	<0.001	0.0016	0.0052	0.0009	0.0034	0.0117	0.0116	0.0147	0.0048	0.0045	<0.0005	0.0007	0.0026	0.0006	0.0231	<0.0005	<0.0002	<0.0005	<0.0005	0.0003	<0.0005	0.743
SD002	0902_QC207_220527	27/05/2022	Interlab_D	0.01	1.4	0.11	1.5	0.011	0.013	0.025	-	0.019	0.0028	0.0046	0.018	0.0036	0.0024	0.0053	0.012	0.031	0.014	0.009	<0.0001	0.0013	0.0058	0.0044	0.044	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	1.8
SD002	0902_SD002_220527	27/05/2022	Normal	0.0115	1.49	0.157	1.65	0.0124	0.0153	0.0261	-	0.0138	0.003	0.0054	0.0214	0.0044	0.0027	0.0067	0.0152	0.0263	0.0084	0.0072	<0.0005	0.0011	0.0098	0.0022	0.0349	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	1.87
SD003	0902_SD003_040717	4/07/2017	Normal	0.0082	0.936	0.0947	1.03	0.0022	0.0027	0.0054	-	0.0212	0.001	0.0029	0.0077	0.0031	0.0073	0.0148	0.0110	0.0039	0.0011	0.0006	<0.0005	0.0084	0.0125	0.0005	0.0174	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	1.16
SD003	0902_QC211_180115	15/01/2018	Interlab_D	0.022	3.7	0.086	3.786	0.0052	0.0063	0.039	-	0.083	0.0036	0.01	0.018	0.0095	0.03	0.042	0.032	0.058	0.013	<0.05	<0.001	0.055	0.052	0.01	0.034	<0.01	<0.002	<0.01	<0.01	<0.002	<0.05	-
SD003	0902_SD003_180115	15/01/2018	Normal	0.0260	1.98	0.0968	2.08	0.0060	0.0058	0.0187	-	0.0214	<0.001	0.0192	0.0192	0.0120	0.0299	0.0388	0.0193	0.0245	0.0099	0.0349	<0.0005	0.779	0.0778	0.0067	0.0730	<0.0006	0.0006	<0.0006	<0.0006	0.0009	<0.0006	3.30
SD003	0902_SD003_270218	27/02/2018	Normal	0.0069	0.289	0.0200	0.309	0.0016	0.0014	0.0023	-	0.0068	<0.001	0.0027	0.0055	0.0028	0.0060	0.0087	0.0047	0.0050	0.0004	<0.0005	<0.0005	0.0043	0.0027	<0.0005	0.0055	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.376
SD003	0902_QC121_270218	27/02/2018	Field_D	0.0071	0.297	0.0215	0.318	0.0019	0.0016	0.0030	-	0.0081	<0.001	0.0026	0.0058	0.0028	0.0048	0.0088	0.0050	0.0058	0.0006	<0.0005	<0.0005	0.0037	0.0045	<0.0005	0.0067	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.391
SD003	0902_SD003_191111	11/11/2019	Normal	0.0114	2.66	0.149	2.81	0.0132	0.0136	0.0158	-	0.0359	0.003	0.0047	0.0245	0.0032	0.0217	0.0411	0.0136	0.0209	0.0043	0.0039	<0.0005	0.0066	0.0370	0.0063	0.0337	<0.0005	<0.0002	<0.0005	<0.0005	0.0007	<0.0005	3.12
SD003	0902_SD003_200514	14/05/2020	Normal	0.0113	1.46	0.0683	1.53	0.0061	0.0057	0.0117	-	0.0550	0.009	0.0032	0.0133	0.0036	0.0113	0.0441	0.0514	0.0784	0.0194	0.0113	<0.0025	0.0194	0.0639	0.0150	0.0647	<0.0062	<0.0025	<0.0062	<0.0062	<0.0025	<0.0062	2.03
SD003	0902_SD003_201113	13/11/2020	Normal	0.0047	0.497	0.0350	0.532	0.0022	0.0025	0.0044	-	0.0138	0.001	0.0020	0.0055	0.0018	0.0038	0.0121	0.0115	0.0084	0.0021	0.0005	<0.0005	0.0008	0.0019	<0.0005	0.0177	<0.0005	<0.0002	<0.0005	<0.0005	0.0002	<0.0005	0.629
SD003	0902_SD003_210505	5/05/2021	Normal	0.0105	0.630	0.0771	0.707	0.0041	0.0066	0.0092	-	0.0288	0.003	0.0077	0.0109	0.0039	0.0096	0.0198	0.0211	0.0230	0.0049	0.0025	<0.0005	0.0010	0.0010	<0.0005	0.0128	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.888
SD003	0902_QC210_211129	29/11/2021	Interlab_D	0.0054	1.1	0.07	1.1	0.0038	0.0046	0.011	-	0.015	0.002	0.0031	0.0073	0.0022	0.0068	0.025	0.029	0.051	0.03	0.005	<0.0001	0.0014	0.01	0.002	0.024	<0.001	<0.0002	<0.001	<0.001	0.0002	<0.005	1.4
SD003	0902_SD003_211129	29/11/2021	Normal	0.0094	1.29	0.106	1.40	0.0067	0.0073	0.0092	-	0.0534	0.003	0.0076	0.0136	0.0039	0.0076	0.0247	0.0344	0.0490	0.0110	<0.0005	<0.0005	0.0013	0.0030	0.0009	0.0232	<0.0005	<0.0002	<0.0005	<0.0005	0.0003	<0.0005	1.66
SD003	0902_SD003_220527	27/05/2022	Normal	0.0055	1.18	0.0818	1.26	0.0064	0.0073	0.0149	-	0.0092	0.001	0.0022	0.0103	0.0022	0.0013	0.0034	0.0068	0.0120	0.0035	0.0025	<0.0005	0.0007	0.0046	0.0013	0.0066	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	1.36
SD005	0902_SD005_040717	4/07/2017	Normal	<0.0002	0.0068	0.0004	0.0072	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0072
SD005	0902_SD005_191108	8/11/2019	Normal	<0.0002	0.0044	<0.0002	0.0044	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0044
SD005	0902_SD005_200514	14/05/2020	Normal	<0.0002	0.0112	0.0007	0.0119	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0119
SD005	0902_QC105_200514	14/05/2020	Field_D	<0.0002	0.0148	0.0007	0.0155	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0155
SD005	0902_SD005_201112	12/11/2020	Normal	<0.0002	0.0083	0.0005	0.0088	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0088
SD005	0902_QC105_201112	12/11/2020	Field_D	<0.0002	0.0093	0.0008	0.0101	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0101
SD005	0902_SD005_210506	6/05/2021	Normal	<0.0002	0.0116	0.0012	0.0128	0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0130
SD005	0902_SD005_211125	25/11/2021	Normal	<0.0002	0.0167	0.0012	0.0179	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0183
SD005	0902_SD005_220526	26/05/2022	Normal	<0.0002	0.0073	0.0002	0.0075	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0075
SD007	0902_SD007_040717	4/07/2017	Normal	0.0003	0.0146	0.0015	0.0161	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	0.0003	0.0003	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.0017	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0187
SD007	0902_SD007_180115	15/01/2018	Normal	<0.0002	0.0103	0.0009	0.0112	<0.0002	<0.0002	0.0009	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0123
SD007	0902_SD007_191108	8/11/2019	Normal	<0.0002	0.0044	0.0007	0.0051	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0051
SD007	0902_SD007_200514	14/05/2020	Normal	<0.0002	0.0033	0.0002	0.0035	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0035
SD007	0902_QC207_200514	14/05/2020	Interlab_D	<0.001	0.0057	<0.001	0.0057	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	-
SD007	0902_SD007_201112	12/11/2020	Normal	<0.0002	0.0035	0.0005	0.0040	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0042
SD007	0902_QC205_201112	12/11/2020	Interlab_D	<0.001	0.0041	<0.001	0.0041	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	-

AECOM

Table T9 - Historical Sediment Analytical Results

				PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							
				Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001
Location Code	Field ID	Date	Sample Type																															
SD007	0902_SD007_210506	6/05/2021	Normal	<0.0002	0.0012	0.0002	0.0014	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0019
SD007	0902_SD007_211129	29/11/2021	Normal	<0.0002	0.0121	0.0008	0.0129	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0129
SD007	0902_QC111_211129	29/11/2021	Field_D	<0.0002	0.0100	0.0012	0.0112	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0115
SD007	0902_SD007_220526	26/05/2022	Normal	<0.0002	0.0018	<0.0002	0.0018	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0018
SD008	0902_SD008_030717	3/07/2017	Normal	<0.0002	0.0385	0.0019	0.0404	<0.0002	<0.0002	0.0003	-	0.0008	<0.001	<0.0002	<0.0002	<0.0002	0.0002	0.0003	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.0008	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0430
SD008	0902_SD008_270218	27/02/2018	Normal	0.0004	0.0367	0.0043	0.0410	0.0003	0.0003	0.0003	-	0.0008	<0.001	<0.0002	0.0006	0.0005	0.0002	0.0002	0.0004	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0452
SD008	0902_SD008_191108	8/11/2019	Normal	<0.0002	0.0068	0.0006	0.0074	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	0.0012	<0.0005	0.0086
SD008	0902_SD008_200514	14/05/2020	Normal	<0.0002	0.0109	0.0018	0.0127	0.0002	0.0004	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0133
SD008	0902_QC108_200514	14/05/2020	Field_D	<0.0002	0.0161	0.0032	0.0193	0.0003	0.0003	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0201
SD008	0902_SD008_201112	12/11/2020	Normal	0.0002	0.0172	0.0019	0.0191	0.0006	<0.0002	<0.0002	-	<0.0002	<0.001	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0204
SD008	0902_SD008_210506	6/05/2021	Normal	<0.0002	0.0043	0.0020	0.0063	0.0004	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0069
SD008	0902_SD008_211129	29/11/2021	Normal	<0.0002	0.0056	0.0011	0.0067	<0.0002	<0.0002	0.0010	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0009	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0086
SD008	0902_QC114_211129	29/11/2021	Field_D	<0.0002	0.0036	0.0010	0.0046	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0046
SD008	0902_SD008_220526	26/05/2022	Normal	<0.0002	0.0072	0.0010	0.0082	<0.0002	<0.0002	<0.0002	-	0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0084
SD009	0902_SD009_030717	3/07/2017	Normal	0.0016	0.183	0.0067	0.190	<0.0002	<0.0002	0.0010	-	0.0029	<0.001	0.0005	0.0006	0.0004	0.0008	0.0007	0.0007	0.0006	0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0010	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.201
SD009	0902_SD009_180115	15/01/2018	Normal	0.0008	0.263	0.0086	0.272	<0.0002	<0.0002	0.0011	-	0.0064	<0.001	<0.0002	0.0003	0.0002	0.0003	0.0006	0.0004	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0048	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.287
SD009	0902_SD09_050218	5/02/2018	Normal	0.0004	0.191	0.0024	0.193	<0.0002	<0.0002	0.0007	-	0.0094	<0.001	<0.0002	<0.0002	<0.0002	0.0002	0.0004	0.0005	0.0004	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0011	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.206
SD009	0902_SD009_270218	27/02/2018	Normal	0.0016	0.0917	0.0071	0.0988	0.0003	0.0004	0.0008	-	0.0027	0.002	<0.0002	0.0006	0.0004	0.0003	0.0006	0.0007	0.0007	<0.0002	<0.0005	<0.0005	0.0014	0.0007	<0.0005	0.0009	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.113
SD009	0902_SD009_191104	4/11/2019	Normal	<0.0002	0.0178	0.0009	0.0187	<0.0002	<0.0002	<0.0002	-	0.0008	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0020	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0223
SD009	0902_SD009_200514	14/05/2020	Normal	0.0024	0.147	0.0227	0.170	0.0016	0.0041	0.0017	-	0.0041	0.002	0.0044	0.0032	0.0020	0.0008	0.0006	0.0017	0.0106	0.0054	0.0043	<0.0005	0.0018	0.0016	0.0009	0.0040	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.227
SD009	0902_SD009_201112	12/11/2020	Normal	0.0007	0.0822	0.0086	0.0908	0.0007	0.0007	0.0006	-	0.0016	0.001	0.0011	0.0019	0.0004	<0.0002	0.0003	0.0008	0.0053	0.0030	0.0028	<0.0005	0.0010	0.0012	0.0006	0.0018	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.116
SD009	0902_SD009_210506	6/05/2021	Normal	0.0005	0.0712	0.0037	0.0749	<0.0002	<0.0002	0.0007	-	0.0066	<0.001	0.0004	0.0004	0.0003	0.0005	0.0009	0.0012	0.0010	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0004	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0878
SD009	0902_QC215_211129	29/11/2021	Interlab_D	0.0003	0.047	0.0031	0.05	0.0002	0.0002	0.0005	-	0.0006	<0.0002	0.0004	0.0004	0.0002	0.0002	<0.0005	0.0006	0.001	0.001	<0.005	<0.0001	0.0001	0.0004	0.0003	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	0.057
SD009	0902_SD009_211129	29/11/2021	Normal	0.0003	0.0493	0.0032	0.0525	0.0003	0.0003	0.0003	-	0.0010	<0.001	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0561
SD009	0902_SD009_220526	26/05/2022	Normal	0.0005	0.0541	0.0079	0.0620	<0.0002	0.0003	0.0007	-	0.0010	<0.001	<0.0002	0.0004	<0.0002	0.0005	0.0003	0.0003	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0665
SD011	0902_QC206_040717	4/07/2017	Interlab_D	0.0026	0.38	0.017	0.397	0.0009	0.0013	0.0022	-	0.0024	0.001	<0.0002	0.0024	<0.0001	0.0011	0.002	0.004	0.011	0.0084	0.009	<0.0001	0.0005	0.0078	0.0024	0.004	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	-
SD011	0902_SD011_040717	4/07/2017	Normal	0.0066	0.722	0.0479	0.770	0.0003	0.0005	0.0068	-	0.0060	<0.001	<0.0002	0.0057	0.0014	0.0042	0.0041	0.0085	0.0152	0.0078	0.0063	<0.0005	0.0040	0.0463	0.0065	0.0106	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.911
SD011	0902_SD011_180115	15/01/2018	Normal	0.0014	0.178	0.0085	0.186	<0.0002	0.0006	0.0021	-	0.0022	<0.001	<0.0002	0.0012	0.0006	0.0005	0.0010	0.0016	0.0028	0.0029	0.0076	<0.0005	0.0028	0.0047	0.0007	0.0072	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.226
SD011	0902_QC221_270218	27/02/2018	Interlab_D	0.0005	0.035	0.0060	0.041	0.0005	0.0005	0.0006	-	0.0005	0.0006	0.0007	0.0011	0.0002	0.0003	<0.0005	<0.0005	0.0007	<0.0005	<0.005	<0.0001	0.0002	0.0003	0.0001	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	-
SD011	0902_SD011_270218	27/02/2018	Normal	0.0003	0.0090	0.0012	0.0102	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	0.0007	0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	0.0030	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0146
SD011	0902_SD011_191108	8/11/2019	Normal	<0.0002	0.0027	<0.0002	0.0027	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0027
SD011	0902_SD011_200515	15/05/2020	Normal	<0.0005	0.0217	0.0027	0.0244	<0.0005	<0.0005	<0.0005	-	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0009	0.0018	<0.0005	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	<0.0012	0.0271
SD011	0902_SD011_201112	12/11/2020	Normal	0.0005	0.0664	0.0045	0.0709	<0.0002	0.0002	0.0004	-	0.0006	<0.001	0.0006	0.0011	0.0003	0.0003	0.0006	0.0011	0.0028	0.0007	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0815
SD011	0902_SD011_210507	7/05/2021	Normal	<0.0002	0.0311	0.0021	0.0332	<0.0002	<0.0002	<0.0002	-	0.0012	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0003	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0352
SD011	0902_SD011_211129	29/11/2021	Normal	0.0006	0.117	0.0050	0.122	0.0003	0.0003	0.0006	-	0.0027	<0.001	0.0004	0.0013	0.0004	0.0008	0.0014	0.0019	0.0025	0.0008	0.0008	<0.0005	<0.0005	<0.0005	<0.0005	0.0007	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.138
SD011	0902_SD011_220527	27/05/2022	Normal	0.0004	0.0407	0.0059	0.0466	0.0008	0.0008	0.0005	-	0.0007	<0.001	0.0003	0.0011	0.0002	<0.0002	<0.0002	0.0003	0.0006	0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0527
SD013	0902_SD013_030717	3/07/2017	Normal	0.0006	0.0416	0.0064	0.0480	<0.0002	0.0002	0.0003	-	0.0005	<0.001	<0.0002	0.0005	0.0003	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0506
SD013	0902_SD013_191108	8/11/2019	Normal	<0.0002	0.0135	0.0018	0.0153	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0004	0.0008	0.0014	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0184
SD013	0902_SD013_200514	14/05/2020	Normal	0.0002	0.0382	0.0029	0.0411	0.0002	0.0004	0.0002	-	0.0004	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0428
SD013	0902_QC209_200514	14/05/2020	Interlab_D	<0.001	0.054	0.0035	0.0575	<0.001	<0.001	<0.001	<0.001	<0.001	0.029	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.005	-
SD013	0902_SD013_201112	12/11/2020	Normal	<0.0002	0.0148	0.0025	0.0173	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0173
SD013	0902_SD013_210506	6/05/2021	Normal	0.0006	0.0276	0.0022	0.0298	<0.0002	<0.0002	0.0002	-	0.0003	<0.001	0.0003	0.0006	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0322
SD013	0902_SD013_211129	29/11/2021	Normal	0.0008	0.178	0.0358	0.214	0.0006	0.0011	0.0024	-	0.0017	<0.001	0.0019	0.0013	0.0003	0.0003	0.0004	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.225
SD013	0902_SD013_220527	27/05/2022	Normal	<0.0002	0.0463	0.0030	0.0493	<0.0002	<0.0002	0.0007	-	0.0005	<0.001	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0507
SD014	0902_SD014_030717	3/07/2017	Normal	0.0008	0.158	0.0151	0.173	0.0004	0.0007	0.0019	-	0.0008	<0.001	<0.0002	0.0006	<0.0002	<0.0002	0.0005	0.0011	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0020	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.182
SD014	0902_SD014_191108	8/11/2019	Normal	<0.0002	0.0004	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0004
SD014	0902_QC103_191108	8/11/2019	Field_D	<0.0002	0.0006	0.0003	0.0009	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0009
SD014	0902_SD014_200514	14/05/2020	Normal	<0.0002	0.0247	0.0019	0.0266	<0.0002	<0.0002	<0.0002	-	<0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	0.0014	0.0011	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0307
SD014	0902_SD014_201112	12/11/2020	Normal	<0.0002	0.0136	0.0015	0.0151	0.0005	<0.0002	<0.0002	-	<0.0002	0.002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0006	0.0011	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0198
SD014	0902_QC202_210506	6/04/2021	Interlab_D	<0.01	0.094	0.056	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	0.014	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	-
SD014	0902_SD014_210506	6/05/2021	Normal	0.0032	0.0625	0.0523	0.115	0.0044	0.0054	0.0027	-	0.0010	<0.001	0.0041	0.0151	0.0014	<0.0002	0.0011	0.0028	0.0060	0.0010	<0.0006	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006	0.163
SD014	0902_SD014_211125	25/11/2021	Normal	0.0005	0.0629	0.0064	0.0693	0.0005	0.0004	0.0008	-	0.0017	<0.001	<0.0002	0.0022	0.0003	<0.0002	0.0009	0.0032	0.0070	0.0012	0.0010	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006	0.0896

AECOM

Table T9 - Historical Sediment Analytical Results

				PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							
				Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorododecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001
Location Code	Field ID	Date	Sample Type																														
SD014	0902_QC204_220526	26/05/2022	Interlab_D	<0.0001	0.0059	0.0008	0.0067	<0.0001	<0.0001	<0.0001	-	<0.0002	<0.0002	<0.0002	0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	0.0068
SD014	0902_SD014_220526	26/05/2022	Normal	<0.0002	0.0015	0.0003	0.0018	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0018
SD015	0902_SD015_030717	3/07/2017	Normal	0.0003	0.0367	0.0033	0.0400	<0.0002	<0.0002	0.0003	-	0.0005	0.001	<0.0002	0.0002	<0.0002	0.0003	0.0003	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.0006	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0437
SD015	0902_SD015_270218	27/02/2018	Normal	0.0003	0.0179	0.0019	0.0198	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0201
SD015	0902_SD015_191115	15/11/2019	Normal	<0.0002	0.0221	0.0016	0.0237	<0.0002	<0.0002	<0.0002	-	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0243
SD015	0902_QC106_191115	15/11/2019	Field_D	<0.0002	0.0153	0.0012	0.0165	<0.0002	<0.0002	<0.0002	-	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0170
SD015	0902_SD015_200514	14/05/2020	Normal	<0.0002	0.0119	0.0006	0.0125	<0.0002	<0.0002	<0.0002	-	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0128
SD015	0902_SD015_201112	12/11/2020	Normal	<0.0002	0.0088	0.0007	0.0095	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0095
SD015	0902_SD015_210505	5/05/2021	Normal	<0.0002	0.0048	0.0005	0.0053	<0.0002	<0.0002	<0.0002	-	0.0009	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0062
SD015	0902_SD015_211129	29/11/2021	Normal	<0.0002	0.0016	<0.0002	0.0016	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0016
SD015	0902_SD015_220530	30/05/2022	Normal	<0.0002	0.0044	0.0005	0.0049	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0049
SD015	0902_QC110_220530	30/05/2022	Field_D	<0.0002	0.0031	0.0005	0.0036	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0039
SD016	0902_SD016_030717	3/07/2017	Normal	<0.0002	0.0022	<0.0002	0.0022	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0022
SD016	0902_SD016_180115	15/01/2018	Normal	<0.0002	0.0006	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0006
SD016	0902_SD016_270218	27/02/2018	Normal	<0.0002	0.0027	<0.0002	0.0027	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0027
SD016	0902_QC204_191114	14/11/2019	Interlab_D	<0.001	0.0040	<0.001	0.0040	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	-
SD016	0902_SD016_191114	14/11/2019	Normal	<0.0002	0.0005	<0.0002	0.0005	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0005
SD016	0902_SD016_200514	14/05/2020	Normal	<0.0002	0.0037	<0.0002	0.0037	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0037
SD016	0902_SD016_201113	13/11/2020	Normal	<0.0002	0.0015	<0.0002	0.0015	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0015
SD016	0902_SD016_210505	5/05/2021	Normal	0.0005	0.0080	0.0006	0.0086	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0091
SD016	0902_SD016_211129	29/11/2021	Normal	<0.0002	0.0027	<0.0002	0.0027	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0027
SD016	0902_SD016_220530	30/05/2022	Normal	<0.0002	0.0009	<0.0002	0.0009	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0009
SD018	0902_SD018_040717	4/07/2017	Normal	0.0013	0.0235	0.0014	0.0249	<0.0002	<0.0002	0.0002	-	0.0004	<0.001	0.0005	0.0005	0.0005	0.0011	0.0037	0.0012	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0004	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0350
SD018	0902_SD018_270218	27/02/2018	Normal	0.0004	0.0020	<0.0002	0.0020	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	0.0004	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0030
SD018	0902_SD018_191125	25/11/2019	Normal	0.0005	0.0071	0.0004	0.0075	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	0.0006	0.0009	0.0002	0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0103
SD018	0902_QC110_191125	25/11/2019	Field_D	0.0005	0.0060	0.0004	0.0064	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	0.0007	0.0011	0.0003	0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0096
SD018	0902_SD018_200515	15/05/2020	Normal	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	-	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	0.0007	<0.0005	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	<0.0012	0.0015
SD018	0902_SD018_201113	13/11/2020	Normal	<0.0002	0.0009	0.0004	0.0013	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	0.0010	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0026
SD018	0902_SD018_211129	29/11/2021	Normal	<0.0002	0.0005	<0.0002	0.0005	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0005
SD018	0902_SD018_220531	31/05/2022	Normal	<0.0002	0.0004	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0004
SD019	0902_SD019_040717	4/07/2017	Normal	<0.0002	0.0027	0.0005	0.0032	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0032
SD019	0902_SD019_191125	25/11/2019	Normal	<0.0002	0.0016	<0.0002	0.0016	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0016
SD019	0902_SD019_200515	15/05/2020	Normal	<0.0002	0.0014	<0.0002	0.0014	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0014
SD019	0902_SD019_201113	13/11/2020	Normal	<0.0002	0.0014	<0.0002	0.0014	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0014
SD019	0902_SD019_210507	7/05/2021	Normal	0.0002	0.0036	0.0006	0.0042	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0044
SD019	0902_SD019_211129	29/11/2021	Normal	<0.0002	0.0056	0.0009	0.0065	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0065
SD019	0902_SD019_220531	31/05/2022	Normal	<0.0002	0.0008	<0.0002	0.0008	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0008
SD020	0902_SD20_131117	13/11/2017	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD020	0902_SD020_191125	25/11/2019	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD020	0902_SD020_200515	15/05/2020	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD020	0902_SD020_201113	13/11/2020	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD020	0902_SD020_210507	7/05/2021	Normal	<0.0002	0.0055	<0.0002	0.0055	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0055
SD020	0902_SD020_211129	29/11/2021	Normal	<0.0002	0.0047	<0.0002	0.0047	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0047
SD020	0902_SD020_220531	31/05/2022	Normal	<0.0002	0.0007	<0.0002	0.0007	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0007
SD022	0902_SD22_131117	13/11/2017	Normal	<0.0002	0.0014	<0.0002	0.0014	<0.0002	<0.0002	<0.0002	-	0.0058	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	0.0024	<0.0005	0.0101
SD022	0902_QC108_191115	15/11/2019	Field_D	<0.0002	0.0003	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003
SD022	0902_SD022_191115	15/11/2019	Normal	<0.0002	0.0004	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0004
SD022	0902_SD022_200515	15/05/2020	Normal	<0.0005	0.0037	<0.0005	0.0037	<0.0005	<0.0005	<0.0005	-	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0017	0.0014	<0.0005	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	<0.0012	0.0068
SD022	0902_SD022_201113	13/11/2020	Normal	0.0003	0.0047	0.0004	0.0051	<0.0002	<0.0002	<0.0002	-	0.0068	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0008	0.0003	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	0.0006	<0.0005	0.0144
SD022	0902_SD022_210505	5/05/2021	Normal	0.0002	0.0036	0.0003	0.0039	<0.0002	<0.0002	<0.0002	-	0.0032	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	0.0012	<0.0005	0.0095
SD022	0902_SD022_211129	29/11/2021	Normal	<0.0002	0.0027	0.0003	0.0030	<0.0002	<0.0002	<0.0002	-	0.0012	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0045
SD022	0902_SD022_220530	30/05/2022	Normal	<0.0002	0.0006	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0006

AECOM

Table T9 - Historical Sediment Analytical Results

				PFAS				PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic				PFAS - Perfluoroalkyl Sulfonamides							
				Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorononanesulfonic acid (PFNS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001
Location Code	Field ID	Date	Sample Type																															
SD023	0902_SD23_131117	13/11/2017	Normal	<0.0002	0.0158	0.0008	0.0166	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	0.0002	0.0003	<0.0002	<0.0002	0.0002	0.0005	0.0006	<0.0002	<0.0005	<0.0005	<0.0005	0.0010	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0194
SD023	0902_QC180_131117	13/11/2017	Field_D	<0.0002	0.0126	0.0008	0.0134	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0003	0.0004	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0145
SD023	0902_SD023_180115	15/01/2018	Normal	<0.0002	0.0004	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0004
SD023	0902_QC111_180115	15/01/2018	Field_D	<0.0002	0.0006	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0006
SD023	0902_SD023_191111	11/11/2019	Normal	<0.0002	0.0075	0.0006	0.0081	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	0.0003	0.0003	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0089
SD023	0902_SD023_200515	15/05/2020	Normal	0.0005	0.0312	0.0008	0.0320	<0.0002	<0.0002	<0.0002	-	0.0003	0.002	<0.0002	0.0004	<0.0002	0.0004	0.0004	0.0004	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0004	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0373
SD023	0902_SD023_201113	13/11/2020	Normal	<0.0002	0.0019	0.0002	0.0021	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0021
SD023	0902_SD023_211125	25/11/2021	Normal	<0.0002	0.0094	0.0004	0.0098	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0098
SD023	0902_QC109_211125	25/11/2021	Field_D	<0.0002	0.0087	0.0003	0.0090	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0090
SD023	0902_SD023_220531	31/05/2022	Normal	<0.0002	0.0003	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003
SD024	0902_SD24_131117	13/11/2017	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD024	0902_SD024_191115	15/11/2019	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD024	0902_SD024_200514	14/05/2020	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD024	0902_SD024_201112	12/11/2020	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD024	0902_SD024_210505	5/05/2021	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD024	0902_SD024_211126	26/11/2021	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD024	0902_SD024_220531	31/05/2022	Normal	<0.0002	0.0009	<0.0002	0.0009	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0012
SD030	0902_QC281_131117	17/11/2013	Interlab_D	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.005	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	-
SD030	0902_SD30_131117	13/11/2017	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	0902_SD030_180118	18/01/2018	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	0902_SD030_270218	27/02/2018	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	0902_SD030_191115	15/11/2019	Normal	<0.0002	0.0003	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003
SD030	0902_SD030_200515	15/05/2020	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	0902_SD030_201113	13/11/2020	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	0902_SD030_210507	7/05/2021	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	0902_SD030_211129	29/11/2021	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	0902_SD030_220531	31/05/2022	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD032	0902_SD32_131117	13/11/2017	Normal	0.0004	0.0532	0.0017	0.0549	0.0003	<0.0002	<0.0002	-	0.0030	<0.001	0.0005	0.0009	0.0002	0.0003	0.0012	0.0006	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0623
SD032	0902_SD32_131117	13/11/2017	Normal	0.0004	0.0532	0.0017	0.0549	0.0003	<0.0002	<0.0002	-	0.0030	<0.001	0.0005	0.0009	0.0002	0.0003	0.0012	0.0006	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0623
SD032	0902_SD032_200512	12/05/2020	Normal	<0.0002	0.0108	0.0012	0.0120	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0124
SD032	0902_SD032_201111	11/11/2020	Normal	<0.0002	0.0012	0.0003	0.0015	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0015
SD032	0902_SD032_210504	4/05/2021	Normal	0.0008	0.0293	0.0042	0.0335	<0.0002	<0.0002	0.0007	-	<0.0002	<0.001	0.0002	0.0007	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0359
SD032	0902_SD032_211214	14/12/2021	Normal	<0.0002	0.0044	0.0015	0.0059	0.0003	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0062
SD035	0902_SD035_161117	16/11/2017	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD035	0902_SD035_191115	15/11/2019	Normal	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD035	0902_SD035_200514	14/05/2020	Normal	<0.0002	0.0012	<0.0002	0.0012	<0.0002	<0.0002	<0.0002	-	<0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0022
SD035	0902_SD035_201113	13/11/2020	Normal	<0.0002	0.0003	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003
SD035	0902_SD035_210506	6/05/2021	Normal	<0.0002	0.0021	<0.0002	0.0021	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0021
SD035	0902_SD035_211125	25/11/2021	Normal	<0.0002	0.0018	0.0004	0.0022	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0022
SD035	0902_SD035_220530	30/05/2022	Normal	<0.0002	0.0015	0.0004	0.0019	<0.0002	<0.0002	<0.0002	-	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0019

Appendix C

Calibration Certificates

Appendix C Calibration Certificates

Multi Parameter Water Meter

Instrument **YSI Quatro Pro Plus**
Serial No. **11C100763**

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper	✓	
	Settings	✓	
Software	Version	✓	
Data logger	Operation	✓	
Download	Operation	✓	
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. pH 7.00		pH 7.00		377339	pH 6.95
2. pH 4.00		pH 4.00		380327	pH 4.03
3. mV		241.1mV		380834/387761	240.5mV
4. EC		2.76mS		385047	2.76mS
5. D.O		0.00%		11343	0.01%
6. Temp		19.5		MultiTherm	19.1

Calibrated by: **Victor Rubio**

Calibration date: **23/05/2022**

Next calibration due: **19/11/2022**

Oil / Water Interface Meter

airmet

Air-Met Scientific Pty Ltd
1300 137 067

Instrument **Solinst Interface Meter (60M)**
Serial No. **312482**

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	
	above 8 V		
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
		✓	
Tape Check	Cleaned	✓	
Connectors	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Tested by: Sarah Lian

Test date: **18/05/2022**

Next Test due: **14/11/2022**

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	RAAF Richmond	**Client:**	Department of Defence
PM Name:	Geoff Tredinnick	**Fieldwork Staff Name:**	Andrew Spoor, Nicola Tomlin

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	YSI Pro
Make and Model:	Aimet
Serial Number:	11C100763

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	25 MAY 22 0730				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:		7			
Calibration Reading:		7.00			
Calibration Temperature:		12.1			

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	25 MAY 22 0730				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4	7	2760	0	
Bump Test Reading:	3.99	6.84	2099	0.06	
Bump Test Temperature:	12.1	12.1	12.3	12.1	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

ORP : standard : 251.6
bump reading : 248.4
temp : 12.1

~~Off~~ Conductivity temperature correction factor unknown for 12°C.

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature — Date: 25 MAY 22

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	RAAF Richmond	**Client:**	Department of Defence
PM Name:	Geoff Tredinnick	**Fieldwork Staff Name:**	Andrew Spoor, Nicola Tomlin

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	Aromet
Make and Model:	YSI Pro
Serial Number:	11C100763

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	26 MAY 22 0730				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	26 MAY 22 0730				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4	7	2760	0	
Bump Test Reading:	4.10	6.99	2365	0.05	
Bump Test Temperature:	17.1	17.1	17.2	17.3	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Conductivity temperature correction factor unknown.

ORP: standard: 240.6
bump reading: 222.0
temps: 17.2

} calibrated to 240.6

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

26 MAY 22
Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	RAAF Richmond	**Client:**	Department of Defence
PM Name:	Geoff Tredinnick	**Fieldwork Staff Name:**	Andrew Spoor, Nicola Tomlin

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	Airmet
Make and Model:	YSI Pro
Serial Number:	11C 100 763

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	27 MAY 22				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	27 MAY 22				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4	7	2760	0	
Bump Test Reading:	4.06	6.97	2356	0.04	
Bump Test Temperature:	17.1	17.1	17.3	17.4	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

ORP
Standard: 240.6
bump reading: 207.2
temperature: 17.3

} calibrated to 240.6

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

27 MAY 22
Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	RAAF Richmond	**Client:**	Department of Defence
PM Name:	Geoff Tredinnick	**Fieldwork Staff Name:**	Andrew Spoor, Nicola Tomlin

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	Aumet
Make and Model:	YSI Pro
Serial Number:	11C100763

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	30 MAY 22 0915				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	30 MAY 22 0915				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4	7	2760	0	
Bump Test Reading:	4.10	6.99	2762	0.03	
Bump Test Temperature:	21.2	21.1	21.0	21.2	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

ORP: Standard: 231.8

Reading: 232.0

Temp: 21.1

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

30 MAY 22

Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	RAAF Richmond	**Client:**	Department of Defence
PM Name:	Geoff Tredinnick	**Fieldwork Staff Name:**	Andrew Spoor, Nicola Tomlin

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	Airmet
Make and Model:	YSI Pro
Serial Number:	11C 100 763

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	31/5/22 7:15 AM				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	31/5/22 7:15 AM				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4	7	2760	0	
Bump Test Reading:	4.10	7.02	2520	0.04	
Bump Test Temperature:	11.4	11.7		12.0	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Conductivity correction factor unknown for 11.7°C.

ORP: Standard: 251.6

Reading: 248.4

Temp: 11.9

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

31 MAY 22

Date

Distribution: Project Central File

Appendix D

Analytical Data Validation

Appendix D Analytical Data Validation

Data Validation

Project number:	60612562	**Validation by:**	[redacted]	**Date:** 14/06/2022
Client:	Department of Defence	**Reviewed by:**	[redacted]	**Date:** 12/8/2022
Site:	RAAF Base Richmond			
Matrix type:	Groundwater / Surface Water / Sediment			
Primary samples:	80 Groundwater samples. 21 Surface water samples. 20 Sediment samples.			
Laboratory:	ALS (Primary) Envirolab (Secondary)			
Lab report references:	ES2219017, ES2218422, ES2221117, 296820			

Key Issues:	No issues were identified that have the potential to impact upon the reliability of the Data. AECOM considers that the field procedures and laboratory QA/QC processes employed were appropriate for the purposes of the investigation.
Field QA / QC	
Field DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2022).
Sampling personnel	Sampling was conducted by Andrew Spoor and Nicola Tomlin between 24 to 31 May 2022 and by Dirk Sanderson on 16 June 2022. Field personnel were all suitably qualified and experienced AECOM Environmental Scientists.
Handling and Preservation	Primary and duplicate samples for groundwater, surface water and sediment were placed in a chilled cooler between sampling and analysis. Samples were received preserved and chilled at the laboratory, however all containers were received outside the recommended temperature range (4 ± 2°C). Temperatures upon receipt were as follows: • ES2219017 was received at 0.1°C • ES2218422 which was received at -0.1°C • 296820 which was received at 11°C While one of the sample batch's temperature was outside the recommended range, the laboratory noted 'ice present', therefore AECOM considers that the samples had been appropriately preserved. All samples were received at the laboratory in appropriate sample containers.
Calibration of Equipment	Measurement of groundwater geochemical parameters was undertaken using the YSI WQM Professional Plus, which was calibrated by the supplier prior to use, in accordance with manufacturer's instructions and "bump tested" in the field at the beginning of each sampling day Measurement of depth to groundwater was undertaken by an interface probe, which was serviced by the supplier AES prior to use. All calibration and service certificates are presented in **Appendix C**. It is noted that no gauging data or geochemical data was collected on the 16 June 2022.

Data Validation	
Sampling Methodology	The majority of groundwater samples were collected using pre-deployed 1.1L HydraSleeves™, with collected water deposited directly into laboratory prepared bottles. At locations where HydraSleeves™ were not present, or failed to deploy, samples were collected using dedicated, disposable bailers. Following laboratory instructions, the sample bottles were filled to the top, caps immediately applied and samples stored on ice for preservation. Water quality parameters were collected down-well via a submerged water quality meter and were recorded once field values had stabilised. Surface water samples were either collected from directly beneath the surface to limit the infiltration of sediment into samples or using dedicated, disposable bailers where access was limited. Smaller vials were filled from larger sampling containers, to ensure preservative acids did not spill. Following laboratory instructions, the sample bottles were filled to the top, caps immediately applied and samples stored on ice for preservation. Sediment samples were collected using a trowel and deposited directly into laboratory prepared containers. Following laboratory instructions, the sample containers were filled to the top, caps immediately applied and samples stored on ice for preservation. After sampling at each location, the water quality meter and interface probe were decontaminated using Liquinox and the consumables (nitrile gloves, HydraSleeves™ and/or bailers) were disposed of in a waste bin.
Chain of Custody (COC)	All samples that were collected were reported on the Chain of Custody (COC) documents.
Rinsate Blank	Rinsate blank samples were collected at a frequency of one per day of sampling (six in total). Rinsates were either collected from the final rinse of the interface probe or sampling trowel following decontamination using laboratory supplied de-ionised water. It is noted that no rinsate blank samples were collected on 16 June 2022, as samples were collected using a dedicated HydraSleeve™.
Frequency of field QC	Field duplicate and triplicates (inter-laboratory duplicates) were to be collected at a frequency of one in ten primary samples (10%). In total, thirteen field duplicates were collected for water samples (16.4%), and three field duplicate for sediment (15%) were collected, meeting the DQI. Thirteen inter-laboratory duplicates were collected for water samples (16.4%), and three triplicates for sediment (15%) were collected, meeting the DQI.
Laboratory QA / QC	
Laboratory DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2022).

Data Validation	
Tests requested / reported	All primary water samples were analysed for the Per- and Polyfluoroalkyl Substances (PFAS) extended suite, with approximately 20% of all water samples analysed for nutrients (ammonia, nitrate, nitrite, phosphorous) and metals (aluminium, bromine, iron, manganese). All primary sediment samples were analysed only for the PFAS extended suite. All sample request of analysis was reported on the Chain of Custody (COC). Confirmation of results were requested and adopted for the below samples; • MW016 • MW081 • MW091 • MW098 • MW107I
Holding time compliance	All samples were extracted and analysed within recommended holding times.
Laboratory Accreditation	The primary laboratory was ALS Environmental Pty Ltd (Sydney) a National Association of Testing Authorities (NATA) accredited laboratory (Accreditation No. 825). The secondary laboratory used for the project was Envirolab (Envirolab, Sydney), also a NATA accredited laboratory (accreditation number 2901). All analysis was completed using NATA accredited methods.
Frequency of laboratory QC	The primary laboratory (ALS), reported a sufficient frequency of quality control samples with the exception of duplicates for the following workorders: • **ES2219017** - Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS in the water laboratory duplicate (actual rate: 5.22%, expected rate: 10%) - Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS in the water matrix spike (actual rate: 3.48%, expected rate: 5%) The accuracy of the data can be assessed as acceptable based on method blank, laboratory duplicates, LCS recoveries, which were reported at or above the required frequencies and within control limits.
Method Blank	All method blank concentrations were reported <LOR for the analytes tested from the primary laboratory, ALS. This is presented in the laboratory Quality Control Report.
Laboratory duplicate RPDs	The reported laboratory duplicate Relative Percentage Differences (RPD) were within laboratories control limits, with the exception of a number of PFAS compounds in SD001 in batch ES2219017. Given the low limits of reporting for these PFAS compounds, AECOM considers that this would not significantly impact upon the reliability of the data. The laboratory duplicate RPDs are presented in the laboratory Quality Control Report.
Laboratory control spike recovery	Laboratory Control Spike (LCS) recoveries were within the DQIs (70-130%) and / or laboratory analyte specific acceptance criteria (ASAC). The laboratory control spike recovery percentages are presented in the laboratory QC Reports (Appendix E).

Data Validation	
Matrix spike recovery	The reported laboratory Matrix Spike (MS) recoveries were within the laboratory control limits for PFAS analytes with the exception of a number of PFAS compounds in batches ES2219017 where the MS recovery was not determined due to background levels being greater than or equal to 4x spike level. Given the low limits of reporting for these PFAS compounds, AECOM considers that this would not significantly impact upon the reliability of the data.
Surrogate spike recovery	The reported surrogate spike recoveries were within laboratory control limits (60% - 120%).
QA / QC Data Evaluation	
Comparison of Field Observations and Laboratory Results	No anomalous results between field observations and analysis results were noted.
Data transcription	A check of the laboratory results identified no anomalies within the electronic data, the laboratory reports, and tables generated by AECOM.
Limits of reporting	LORs were sufficiently low to enable assessment against adopted guideline criteria.
Rinsate Blank results	The results of the rinsate analysis indicated that concentrations of PFAS were below the limit of reporting (LOR) for all analytes tested indicating that the decontamination procedures employed were appropriate. Rinsate results are presented in **Table D1** in **Appendix D**.
Field duplicate and Triplicate RPDs	The RPDs for water field duplicates were calculated to be within the DQIs, with the exception of a number of PFAS analytes for water sample duplicate pairs exceeding the DQI with RPDs ranging between 31% and 69% (refer to **Table D2**). Sediment Field duplicate RPDs were reported within the DQIs, with the exception of a number of PFAS analytes for sediment sample duplicate pairs exceeding the DQI with RPDs ranging between 31% and 119% (refer to **Table D3**). The RPD exceedances were largely attributed to the low concentrations of PFAS compounds reported in the primary and duplicate samples which were noted generally to be within the same order of magnitude for each duplicate pair. Therefore, AECOM does not consider that these RPD exceedances impact upon the reliability of the data. Water and Sediment Duplicate RPD results are presented in **Tables D2** and **D3** (respectively) in **Appendix D**.
Overall Assessment	
Data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.	

Attachments:

Table D1 – Rinsate Results

Table D2 – RPD Results (Water)

Table D3 - RPD Results (Sediment)

Table D1 - Rinsate Results

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| | | |

Table D2 - RPD Results (water)

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	Lab Report Number	ES2219017	ES2219017		ES2219017	ES2219017		ES2219017	ES2219017		ES2219017	ES2219017		ES2219017	ES2219017		ES2219017	ES2219017		ES2219017	ES2219017		ES2219017	ES2219017		ES2219017	ES2219017	
	Field ID	0902_MW054_220524	0902_QC100_220524	RPD	0902_MW066_220524	0902_QC102_220524	RPD	0902_MW027_220525	0902_QC103_220525	RPD	0902_SW007_220526	0902_QC105_220526	RPD	0902_MW114_220526	0902_QC106_220526	RPD	0902_MW069_220527	0902_QC107_220527	RPD	0902_MW036_220527	0902_QC108_220527	RPD	0902_SW003_220530	0902_QC109_220530	RPD	0902_SW019_220531	0902_QC111_220531	
	Sampled Date/Time	24/05/2022 10:05	24/05/2022 10:05		24/05/2022 15:20	24/05/2022 15:20		25/05/2022 14:28	25/05/2022 14:28		26/05/2022 13:19	26/05/2022 13:19		26/05/2022 13:50	26/05/2022 13:50		27/05/2022 7:55	27/05/2022 7:55		27/05/2022 14:52	27/05/2022 14:52		30/05/2022 11:32	30/05/2022 11:32		31/05/2022 9:08	31/05/2022 9:08	
Chem_Group	**ChemName**	**Units**	**LOR**																									
	Filtered Total Phosphorus as P	mg/l	0.01																				**0.76**		**0.37**	**69**		
	Sum of PFAS (WA DER List) _1	µg/L	0.01	0.35	0.37	6	1.3	1.63	23	2.2	2.73	22	0.41	0.4	2	0.17	0.15	13	0.96	1.29	29	**1.44**	**2.14**	**39**	158	120	27	0.07	0.06
(n:2) Fluorotelomer Sulfonic Acids	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 ; 0.01 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05 ; 0.01 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	0.25	0.2	22	<0.05	<0.05
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	0.11	0.12	9	<0.05	<0.05
otelomer Sulfonic Acids																													
Perfluoroalkane Carboxylic Acids	Perfluorobutanoic acid (PFBA)	µg/L	0.1 ; 0.02 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	1.4	1.3	7	<0.1	<0.1
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	0.09	0.08	12	<0.02	<0.02
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 ; 0.05 (Interlab)	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	**0.03**	**<0.02**	**40**	<0.02	<0.02
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 ; 0.01 (Interlab)	<0.02	<0.02	0	<0.02	<0.02	0	**0.02**	**0.03**	**40**	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	**<0.02**	**0.03**	**40**	2.04	2.11	3	<0.02	<0.02
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 ; 0.01 (Interlab)	**0.04**	**0.02**	**67**	0.04	0.05	22	0.17	0.19	11	0.06	0.05	18	<0.02	<0.02	0	0.05	0.06	18	**0.14**	**0.2**	**35**	12.4	9.33	28	<0.02	<0.02
	Perfluorononanoic acid (PFNA)	µg/L	0.02 ; 0.01 (Interlab)	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	0.23	0.2	14	<0.02	<0.02
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.02	0	0.03	0.04	29	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	**<0.02**	**0.03**	**40**	**0.03**	**0.05**	**50**	**3.28**	**2.19**	**40**	<0.02	<0.02
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	0.05	0.04	22	<0.02	<0.02
	Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	0.02	0.02	0	**0.02**	**0.03**	**40**	<0.01	0.01	0	<0.01	<0.01	0	0.03	0.03	0	0.02	0.02	0	3.49	2.69	26	<0.01	<0.01
lkane Carboxylic Acids																													
Perfluoroalkane Sulfonic Acids	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	0.09	0.1	11	0.09	0.1	11	0.23	0.3	26	0.03	0.03	0	0.02	0.02	0	0.07	0.09	25	0.2	0.26	26	5.86	4.47	27	<0.02	<0.02
	Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	0.07	0.09	25	<0.02	<0.02
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 ; 0.01 (Interlab)	<0.02	<0.02	0	0.04	0.04	0	0.03	0.04	29	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	0.02	0	**0.02**	**0.03**	**40**	3.2	2.47	26	<0.02	<0.02
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 ; 0.01 (Interlab)	0.06	0.07	15	0.11	0.13	17	0.26	0.34	27	**0.02**	**0.03**	**40**	0.02	0.02	0	0.04	0.05	22	**0.21**	**0.29**	**32**	5.64	5.19	8	<0.02	<0.02
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	0.41	0.49	18	0.49	0.54	10	0.1	0.09	11	<0.01	<0.01	0	0.52	0.63	19	**0.08**	**0.13**	**48**	74	60.6	20	0.04	0.03
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.22	0.25	13	0.74	0.97	27	1.24	1.6	25	0.22	0.22	0	0.15	0.13	14	**0.29**	**0.45**	**43**	**0.97**	**1.45**	**40**	**54.9**	**36.7**	**40**	0.03	0.03
lkane Sulfonic Acids																													
Perfluoroalkyl Sulfonamides	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 ; 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 ; 0.5 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02
	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	0.04	0.03	29	<0.02	<0.02
ityl Sulfonamides																													
PFAS	Sum of PFAS	µg/L	0.01	0.41	0.44	7	1.45	1.8	22	2.49	3.11	22	0.43	0.43	0	0.19	0.17	11	**1**	**1.36**	**31**	**1.67**	**2.46**	**38**	167	128	26	0.07	0.06
	Sum of PFHxS and PFOS	µg/L	0.01	0.22	0.25	13	1.15	1.46	24	1.73	2.14	21	0.32	0.31	3	0.15	0.13	14	0.81	1.08	29	**1.05**	**1.58**	**40**	129	97.3	28	0.07	0.06
Inorganic	Sulfate as SO4 - Turbidimetric (Filtered)	mg/l	1																						11	11	0		
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/l	1 : 5 (Interlab)																						66	60	10		
	Alkalinity (Carbonate as CaCO3)	mg/l	1 : 5 (Interlab)																						<1	<1	0		
	Nitrite + Nitrate as N	mg/l	0.01																						0.44	0.43	2		
	Alkalinity (Hydroxide) as CaCO3	µg/l	1000 : 5000 (Interlab)																						<1000	<1000	0		
	Alkalinity (total) as CaCO3	mg/l	1 : 5 (Interlab)																						66	60	10		
	Ammonia as N	µg/l	10																						250	290	15		
	Anions Total	meq/L	0.01																						2.56	2.53	1		
	Bromine (Filtered)	µg/l	100 ; 10 (Interlab)																						100	<100	0		
	Cations Total	meq/L	0.01																						2.5	2.5	0		
	Chloride	mg/l	1																						36	39	8		
	Ionic Balance	%	0.01																										
	Nitrate (as N)	mg/l	0.01																						0.39	0.39	0		
	Nitrite (as N)	mg/l	0.01																						0.05	0.04	22		
	Sodium (Filtered)	mg/l	1 : 0.5 (Interlab)																						26	26	0		
Metals	Aluminium (Filtered)	mg/l	0.01																						0.02	0.02	0		
	Calcium (Filtered)	mg/l	1 : 0.5 (Interlab)																						16	16	0		
	Iron (Filtered)	mg/l	0.05 : 0.01 (Interlab)																						1.01	0.99	2		
	Magnesium (Filtered)	mg/l	1 : 0.5 (Interlab)																						6	6	0		
	Manganese (Filtered)	mg/l	0.001 : 0.005 (Interlab)																						0.379	0.403	6		
	Potassium (Filtered)	mg/l	1 : 0.5 (Interlab)																						3	3	0		

*RPDs have only been considered where a concentration is greater than 1 times the LOR
**High RPDs are in bold (>30%)

Table D2 - RPD Results (water)

AECOM

	Lab Report Number		ES2219017	ES2219017		ES2219017	296820		ES2219017	296820		ES2219017	296820		ES2219017	296820		ES2219017	296820		ES2219017	296820		ES2219017	296820		ES2219017
	Field ID	RPD	0902_SW030_220531	0902_QC112_220531	RPD	0902_MW064_220524	0902_QC200_220524	RPD	0902_SW022_220530	0902_QC209_220530	RPD	0902_SW018_220531	0902_QC211_220531	RPD	0902_SW024_220531	0902_QC212_220531	RPD	0902_MW008_220525	0902_QC201_220525	RPD	0902_MW041_220525	0902_QC202_220525	RPD	0902_MW108_220526	0902_QC203_220526	RPD	0902_SW011_220527
	Sampled Date/Time		31/05/2022 10:14	31/05/2022 10:14		24/05/2022 14:37	24/05/2022 14:37		30/05/2022 13:03	30/05/2022 13:03		31/05/2022 9:36	31/05/2022 9:36		31/05/2022 11:16	31/05/2022 11:16		25/05/2022 8:59	25/05/2022 8:59		25/05/2022 9:47	25/05/2022 9:47		26/05/2022 8:50	26/05/2022 8:50		27/05/2022 12:41
Chem_Group	**ChemName**	**Units**	**LOR**																							
	Filtered Total Phosphorus as P	mg/l	0.01																							
	Sum of PFAS (WA DER List) _1	µg/L	0.01	15	<0.01	<0.01	0																			
(n:2) Fluorotelomer Sulfonic Acids	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	0	<0.05	<0.05	0	<0.05	<0.02	0	<0.05	<0.02	0	<0.05	<0.02	0	<0.05	<0.02	0	<0.05	<0.02	0	<0.05	<0.02	0	<0.05
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	0	<0.05	<0.05	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	<0.01	0	<0.05	0.02	0	<0.05	<0.01	0	0.07
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	0	<0.05	<0.05	0	<0.05	<0.02	0	<0.05	<0.02	0	<0.05	<0.02	0	<0.05	<0.02	0	<0.05	<0.02	0	<0.05	<0.02	0	<0.05
rotomer Sulfonic Acids																										
Perfluoroalkane Carboxylic Acids	Perfluorobutanoic acid (PFBA)	µg/L	0.1 : 0.02 (Interlab)	0	<0.1	<0.1	0	<0.1	0.02	0	<0.1	0.04	0	<0.1	0.03	0	<0.1	0.03	0	<0.1	0.04	0	<0.1	0.03	0	0.1
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 : 0.05 (Interlab)	0	<0.02	<0.02	0	<0.02	<0.05	0	<0.02	<0.05	0	<0.02	<0.05	0	<0.02	<0.05	0	<0.02	<0.05	0	<0.02	<0.05	0	<0.02
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 : 0.01 (Interlab)	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.01	0	0.02	0.02	0	0.18
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 : 0.01 (Interlab)	0	<0.02	<0.02	0	0.02	0.02	0	<0.02	<0.01	0	**0.07**	**0.05**	**33**	<0.02	<0.01	0	0.07	0.07	0	**0.02**	**0.03**	**40**	0.2	0.17	16	**1.27**
	Perfluorononanoic acid (PFNA)	µg/L	0.02 : 0.01 (Interlab)	0	<0.02	<0.02	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	0.04	0.03	29	**0.32**
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	0	<0.05	<0.05	0	<0.05	<0.5	0	<0.05	<0.5	0	<0.05	<0.5	0	<0.05	<0.5	0	<0.05	<0.5	0	<0.05	<0.5	0	<0.05
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	0	<0.02	<0.02	0	<0.02	<0.1	0	<0.02	<0.1	0	<0.02	<0.1	0	<0.02	<0.1	0	<0.02	<0.1	0	<0.02	<0.1	0	<0.02
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02
	Perfluorooctanoic acid (PFOA)	µg/L	0.01	0	<0.01	<0.01	0	0.02	0.02	0	<0.01	<0.01	0	0.02	0.02	0	<0.01	<0.01	0	<0.01	<0.01	0	**0.02**	**0.01**	**67**	0.37
tane Carboxylic Acids																										
Perfluoroalkane Sulfonic Acids	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	0	<0.02	<0.02	0	0.08	0.08	0	<0.02	<0.01	0	**0.05**	**0.03**	**50**	<0.02	<0.01	0	0.11	0.14	24	<0.02	0.01	0	0.25	0.22	13	0.61
	Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 : 0.01 (Interlab)	0	<0.02	<0.02	0	0.04	0.03	29	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.01	0	<0.02	<0.01	0	**0.4**
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 : 0.01 (Interlab)	0	<0.02	<0.02	0	0.1	0.09	11	<0.02	<0.01	0	**0.04**	**0.02**	**67**	<0.02	<0.01	0	0.1	0.12	18	<0.02	<0.01	0	**0.24**	**0.17**	**34**	0.57
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	29	<0.01	<0.01	0	0.3	0.27	11	0.04	0.03	29	**0.44**	**0.29**	**41**	<0.01	<0.01	0	0.07	0.07	0	0.08	0.07	13	**0.08**	**0.05**	**46**	**12**
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0	<0.01	<0.01	0	0.71	0.59	18	**0.07**	**0.05**	**33**	**0.34**	**0.19**	**57**	<0.01	<0.01	0	0.43	0.53	21	0.08	0.09	12	**0.97**	**0.64**	**41**	**5.28**
tane Sulfonic Acids																										
Perfluoroalkyl Sulfonamides	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 : 0.1 (Interlab)	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0	<0.05	<0.1	0	<0.05	<0.1	0	<0.05	<0.1	0	<0.05	<0.1	0	<0.05	<0.1	0	<0.05
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 : 0.5 (Interlab)	0	<0.05	<0.05	0	<0.05	<0.5	0	<0.05	<0.5	0	<0.05	<0.5	0	<0.05	<0.5	0	<0.05	<0.5	0	<0.05	<0.5	0	<0.05	<0.5	0	<0.05
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0	<0.02
	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0	<0.05
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	0	<0.02	<0.02	0	<0.02	<0.1	0	<0.02	<0.1	0	<0.02	<0.1	0	<0.02	<0.1	0	<0.02	<0.1	0	<0.02	<0.1	0	<0.02	<0.1	0	<0.02
kyl Sulfonamides																										
PFAS	Sum of PFAS	µg/L	0.01	15	<0.01	<0.01	0	1.27	1.1	14	0.11	0.12	9	**0.98**	**0.64**	**42**	<0.01	<0.01	0	0.78	0.97	22	**0.18**	**0.25**	**33**	**1.82**	**1.3**	**33**	**21.2**
	Sum of PFHxS and PFOS	µg/L	0.01	15	<0.01	<0.01	0	1.01	0.86	16	**0.11**	**0.07**	**44**	**0.78**	**0.48**	**48**	<0.01	<0.01	0	0.5	0.6	18	0.16	0.16	0	**1.05**	**0.7**	**40**	**17.3**
Inorganic	Sulfate as SO4 - Turbidimetric (Filtered)	mg/l	1																							
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/l	1 : 5 (Interlab)								194	210	8													
	Alkalinity (Carbonate as CaCO3)	mg/l	1 : 5 (Interlab)								<1	<5	0													
	Nitrite + Nitrate as N	mg/l	0.01																							
	Alkalinity (Hydroxide) as CaCO3	µg/l	1000 : 5000 (Interlab)								<1000	<5000	0													
	Alkalinity (total) as CaCO3	mg/l	1 : 5 (Interlab)								194	210	8													
	Ammonia as N	µg/l	10																							
	Anions Total	meq/L	0.01																							
	Bromine (Filtered)	µg/l	100 : 10 (Interlab)								**700**	**1100**	**44**													
	Cations Total	meq/L	0.01																							
	Chloride	mg/l	1								196	190	3													
	Ionic Balance	%	0.01								**2.7**	**-2**	-													
	Nitrate (as N)	mg/l	0.01																							
	Nitrite (as N)	mg/l	0.01																							
	Sodium (Filtered)	mg/l	1 : 0.5 (Interlab)								115	120	4													
Metals	Aluminium (Filtered)	mg/l	0.01								<0.01	<0.01	0													
	Calcium (Filtered)	mg/l	1 : 0.5 (Interlab)								41	43	5													
	Iron (Filtered)	mg/l	0.05 : 0.01 (Interlab)								0.45	0.53	16													
	Magnesium (Filtered)	mg/l	1 : 0.5 (Interlab)								28	27	4													
	Manganese (Filtered)	mg/l	0.001 : 0.005 (Interlab)								0.653	0.73	11													
	Potassium (Filtered)	mg/l	1 : 0.5 (Interlab)								12	13	8													

*RPDs have only been considered where a concentration is greater than 1 times the LOR.
**High RPDs are in bold (>30%)

Table D2 - RPD Results (water)

AECOM

	Lab Report Number	296820		ES2219017	296820		ES2219017	296820	
	Field ID	0902_QC205_220527	RPD	0902_MW068_220526	0902_QC206_220526	RPD	0902_MW078_220531	0902_QC208_220531	RPD
	Sampled Date/Time	27/05/2022 12:41		26/05/2022 19:59	26/05/2022 19:59		31/05/2022 11:50	31/05/2022 11:50	
Chem_Group	**ChemName**	**Units**	**LOR**						
	Filtered Total Phosphorus as P	mg/l	0.01						
	Sum of PFAS (WA DER List) _1	ug/L	0.01						
(n:2) Fluorotelomer Sulfonic Acids	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	ug/L	0.05 : 0.02 (Interlab)	<0.02	0	<0.05	<0.02	0	<0.05	<0.02	0
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	ug/L	0.05 : 0.01 (Interlab)	<0.01	0	<0.05	<0.01	0	<0.05	<0.01	0
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	ug/L	0.05 : 0.01 (Interlab)	0.06	15	<0.05	<0.01	0	<0.05	<0.01	0
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	ug/L	0.05 : 0.02 (Interlab)	<0.02	0	<0.05	<0.02	0	<0.05	<0.02	0
otelomer Sulfonic Acids											
Perfluoroalkane Carboxylic Acids	Perfluorobutanoic acid (PFBA)	ug/L	0.1 : 0.02 (Interlab)	0.1	0	<0.1	0.06	0	0.1	0.09	11
	Perfluorodecanoic acid (PFDA)	ug/L	0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0
	Perfluorododecanoic acid (PFDoDA)	ug/L	0.02 : 0.05 (Interlab)	<0.05	0	<0.02	<0.05	0	<0.02	<0.05	0
	Perfluoroheptanoic acid (PFHpA)	ug/L	0.02 : 0.01 (Interlab)	0.15	18	0.07	0.08	13	<0.02	0.01	0
	Perfluorohexanoic acid (PFHxA)	ug/L	0.02 : 0.01 (Interlab)	**0.86**	**38**	0.48	0.53	10	0.14	0.13	7
	Perfluorononanoic acid (PFNA)	ug/L	0.02 : 0.01 (Interlab)	0.01	0	<0.02	<0.01	0	<0.02	<0.01	0
	Perfluoropentanoic acid (PFPeA)	ug/L	0.02	**0.2**	**46**	**0.07**	**0.1**	**35**	0.05	0.04	22
	Perfluorotetradecanoic acid (PFTeDA)	ug/L	0.05 : 0.5 (Interlab)	<0.5	0	<0.05	<0.5	0	<0.05	<0.5	0
	Perfluorotridecanoic acid (PFTrDA)	ug/L	0.02 : 0.1 (Interlab)	<0.1	0	<0.02	<0.1	0	<0.02	<0.1	0
	Perfluoroundecanoic acid (PFUnDA)	ug/L	0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0
	Perfluorooctanoic acid (PFOA)	ug/L	0.01	0.31	18	0.21	0.2	5	<0.01	<0.01	0
kane Carboxylic Acids											
Perfluoroalkane Sulfonic Acids	Perfluorobutane sulfonic acid (PFBS)	ug/L	0.02 : 0.01 (Interlab)	0.49	22	0.29	0.34	16	0.07	0.06	15
	Perfluorodecane sulfonic acid (PFDS)	ug/L	0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0
	Perfluoroheptane sulfonic acid (PFHpS)	ug/L	0.02 : 0.01 (Interlab)	**0.23**	**54**	0.15	0.15	0	<0.02	<0.01	0
	Perfluoropentane sulfonic acid (PFPeS)	ug/L	0.02 : 0.01 (Interlab)	0.46	21	0.45	0.42	7	**0.09**	**0.06**	**40**
	Perfluorooctane sulfonic acid (PFOS)	ug/L	0.01	**7.9**	**41**	1.14	0.88	26	**0.01**	**0.02**	**67**
	Perfluorohexane sulfonic acid (PFHxS)	ug/L	0.01	**3.1**	**52**	3.87	3.6	7	**0.56**	**0.41**	**31**
kane Sulfonic Acids											
Perfluoroalkyl Sulfonamides	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	ug/L	0.05 : 0.1 (Interlab)	<0.1	0	<0.05	<0.1	0	<0.05	<0.1	0
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	ug/L	0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	ug/L	0.05 : 0.5 (Interlab)	<0.5	0	<0.05	<0.5	0	<0.05	<0.5	0
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	ug/L	0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	ug/L	0.02	<0.02	0	<0.02	<0.02	0	<0.02	<0.02	0
	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	ug/L	0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.05	0
	Perfluorooctane sulfonamide (FOSA)	ug/L	0.02 : 0.1 (Interlab)	<0.1	0	<0.02	<0.1	0	<0.02	<0.1	0
kyl Sulfonamides											
PFAS	Sum of PFAS	ug/L	0.01	**14**	**41**	6.73	6.4	5	1.02	0.82	22
	Sum of PFHxS and PFOS	ug/L	0.01	**11**	**45**	5.01	4.5	11	0.57	0.43	28
Inorganic	Sulfate as SO4 - Turbidimetric (Filtered)	mg/l	1								
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/l	1 : 5 (Interlab)								
	Alkalinity (Carbonate as CaCO3)	mg/l	1 : 5 (Interlab)								
	Nitrite + Nitrate as N	mg/l	0.01								
	Alkalinity (Hydroxide) as CaCO3	ug/l	1000 : 5000 (Interlab)								
	Alkalinity (total) as CaCO3	mg/l	1 : 5 (Interlab)								
	Ammonia as N	ug/l	10								
	Anions Total	meq/L	0.01								
	Bromine (Filtered)	ug/l	100 : 10 (Interlab)								
	Cations Total	meq/L	0.01								
	Chloride	mg/l	1								
	Ionic Balance	%	0.01								
	Nitrate (as N)	mg/l	0.01								
	Nitrite (as N)	mg/l	0.01								
	Sodium (Filtered)	mg/l	1 : 0.5 (Interlab)								
Metals	Aluminium (Filtered)	mg/l	0.01								
	Calcium (Filtered)	mg/l	1 : 0.5 (Interlab)								
	Iron (Filtered)	mg/l	0.05 : 0.01 (Interlab)								
	Magnesium (Filtered)	mg/l	1 : 0.5 (Interlab)								
	Manganese (Filtered)	mg/l	0.001 : 0.005 (Interlab)								
	Potassium (Filtered)	mg/l	1 : 0.5 (Interlab)								

*RPDs have only been considered where a concentration is greater than 1 times the LOR.
**High RPDs are in bold (>30%)

Table D3 - RPD Results (sediment)

AECOM

				Lab Report Number	ES2219017	ES2219017		ES2219017	ES2219017		ES2219017	296820		ES2219017	296820	
				Field ID	0902_SD001_220524	0902_QC101_220524	**RPD**	0902_SD015_220530	0902_QC110_220530	**RPD**	0902_SD014_220526	0902_QC204_220526	**RPD**	0902_SD002_220527	0902_QC207_220527	**RPD**
				Sampled Date/Time	24/05/2022 11:56	24/05/2022 11:56		30/05/2022 15:17	30/05/2022 15:17		26/05/2022 10:33	26/05/2022 10:33		27/05/2022 10:59	27/05/2022 10:59	
Chem_Group	**ChemName**	**Units**	**LOR**													
	Moisture Content	%	0.1	41	51.2	22	54.4	52.1	4	39.1	31	23	74.1	73	1
	Sum of PFAS (WA DER List) _1	mg/kg	0.0002	**5.42**	**8.7**	**46**	**0.0049**	**0.0036**	**31**						
(n:2) Fluorotelomer Sulfonic Acids	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005 : 0.0002 (Interlab	**0.244**	**0.0688**	**112**	<0.0005	<0.0005	0	<0.0005	<0.0002	0	**0.0022**	**0.0044**	**67**
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005 : 0.0001 (Interlab	<0.0005	<0.0005	0	<0.0005	<0.0005	0	<0.0005	<0.0001	0	<0.0005	<0.0001	0
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)_	mg/kg	0.0005 : 0.0001 (Interlab	**0.022**	**0.0539**	**84**	<0.0005	<0.0005	0	<0.0005	<0.0001	0	0.0011	0.0013	17
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005 : 0.0002 (Interlab	**1.03**	**1.83**	**56**	<0.0005	<0.0005	0	<0.0005	<0.0002	0	**0.0098**	**0.0058**	**51**
otelomer Sulfonic Acids															
Perfluoroalkane Carboxylic Acids	Perfluorobutanoic acid (PFBA)	mg/kg	0.001 : 0.0002 (Interlab)	**0.002**	**0.004**	**67**	<0.001	<0.001	0	<0.001	<0.0002	0	0.003	0.0028	7
	Perfluorodecanoic acid (PFDA)	mg/kg	0.0002 : 0.0005 (Interlab	**0.49**	**0.891**	**58**	<0.0002	<0.0002	0	<0.0002	<0.0005	0	0.0067	0.0053	23
	Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002 : 0.0005 (Interlab	3.72	4.41	17	<0.0002	<0.0002	0	<0.0002	<0.0005	0	0.0263	0.031	16
	Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002 : 0.0001 (Interlab	**0.0098**	**0.022**	**77**	<0.0002	<0.0002	0	<0.0002	<0.0001	0	0.0044	0.0036	20
	Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002 : 0.0001 (Interlab	**0.012**	**0.0263**	**75**	<0.0002	<0.0002	0	<0.0002	0.0001	0	0.0214	0.018	17
	Perfluorononanoic acid (PFNA)	mg/kg	0.0002 : 0.0001 (Interlab	**0.0817**	**0.127**	**43**	<0.0002	<0.0002	0	<0.0002	<0.0001	0	0.0027	0.0024	12
	Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	**0.0061**	**0.0105**	**53**	<0.0002	<0.0002	0	<0.0002	<0.0002	0	0.0054	0.0046	16
	Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005 : 0.005 (Interlab)	**0.207**	**0.389**	**61**	<0.0005	<0.0005	0	<0.0005	<0.005	0	0.0072	0.009	22
	Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002 : 0.0005 (Interlab	0.477	0.622	26	<0.0002	<0.0002	0	<0.0002	<0.0005	0	**0.0084**	**0.014**	**50**
	Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002 : 0.0005 (Interlab	2.94	3.5	17	**<0.0002**	**0.0003**	**40**	<0.0002	<0.0005	0	0.0152	0.012	24
	Perfluorooctanoic acid (PFOA)	mg/kg	0.0002 : 0.0001 (Interlab	**0.0315**	**0.0634**	**67**	<0.0002	<0.0002	0	<0.0002	<0.0001	0	0.0115	0.01	14
lkane Carboxylic Acids															
Perfluoroalkane Sulfonic Acids	Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002 : 0.0001 (Interlab	**0.0037**	**0.0076**	**69**	<0.0002	<0.0002	0	<0.0002	<0.0001	0	0.0124	0.011	12
	Perfluorodecane sulfonic acid (PFDS)	mg/kg	0.0002	**0.218**	**0.349**	**46**	<0.0002	<0.0002	0	<0.0002	<0.0002	0	**0.0138**	**0.019**	**32**
	Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002 : 0.0001 (Interlab	**0.0096**	**0.0236**	**84**	<0.0002	<0.0002	0	<0.0002	<0.0001	0	0.0261	0.025	4
	Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002 : 0.0001 (Interlab	**0.005**	**0.009**	**57**	<0.0002	<0.0002	0	<0.0002	<0.0001	0	0.0153	0.013	16
	Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002 : 0.0001 (Interlab	**4.24**	**6.59**	**43**	**0.0044**	**0.0031**	**35**	**0.0015**	**0.0059**	**119**	1.49	1.4	6
	Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002 : 0.0001 (Interlab	**0.061**	**0.098**	**47**	0.0005	0.0005	0	**0.0003**	**0.0008**	**91**	**0.157**	**0.11**	**35**
lkane Sulfonic Acids															
Perfluoroalkyl Sulfonamides	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005 : 0.001 (Interlab)	<0.0005	<0.0005	0	<0.0005	<0.0005	0	<0.0005	<0.001	0	<0.0005	<0.001	0
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	0	<0.0002	<0.0002	0	<0.0002	<0.0002	0	<0.0002	<0.0002	0
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005 : 0.005 (Interlab)	**0.0524**	**0.0785**	**40**	<0.0005	<0.0005	0	<0.0005	<0.005	0	<0.0005	<0.005	0
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005 : 0.001 (Interlab)	<0.0005	<0.0005	0	<0.0005	<0.0005	0	<0.0005	<0.001	0	<0.0005	<0.001	0
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	0.0014	0.0018	25	<0.0002	<0.0002	0	<0.0002	<0.0002	0	<0.0002	<0.0002	0
	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	mg/kg	0.0005 : 0.001 (Interlab)	<0.0005	<0.0005	0	<0.0005	<0.0005	0	<0.0005	<0.001	0	<0.0005	<0.001	0
	Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002 : 0.001 (Interlab)	0.0693	0.0903	26	<0.0002	<0.0002	0	<0.0002	<0.001	0	0.0349	0.044	23
lkyl Sulfonamides															
PFAS	Sum of PFAS	mg/kg	0.0002 : 0.0001 (Interlab	**13.9**	**19.3**	**33**	0.0049	0.0039	23	**0.0018**	**0.0068**	**116**	1.87	1.8	4
	Sum of PFHxS and PFOS	mg/kg	0.0002 : 0.0001 (Interlab	**4.3**	**6.69**	**43**	**0.0049**	**0.0036**	**31**	**0.0018**	**0.0067**	**115**	1.65	1.5	10

*RPDs have only been considered where a concentration is greater than 1 times the LOR.
**High RPDs are in bold (>30%)

Appendix E

Laboratory Certificates

Appendix E Laboratory Certificates

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2218422**	Page	: 1 of 9
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 26-May-2022 18:55
Order number	: 60612562_5.1	Date Analysis Commenced	: 27-May-2022
C-O-C number	: 38174	Issue Date	: 02-Jun-2022 15:11
Sampler	: ANDREW SPOOR, MAT JENKINS		
Site	: 0902		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 5		
No. of samples analysed	: 5		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EG020: Bromine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW001_220526	0902_MW009_220525	0902_MW010_220525	0902_SW009_220526	----
				Sampling date / time	26-May-2022 13:36	25-May-2022 15:30	25-May-2022 10:25	26-May-2022 15:21	----
Compound	CAS Number	LOR	Unit		ES2218422-001	ES2218422-002	ES2218422-003	ES2218422-005	--------
					Result	Result	Result	Result	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	<0.01	<0.01	**0.03**	----
Manganese	7439-96-5	0.001	mg/L		**0.091**	**2.76**	**0.025**	**0.916**	----
Iron	7439-89-6	0.05	mg/L		**0.19**	<0.05	<0.05	**0.89**	----
Bromine	7726-95-6	0.1	mg/L		**0.7**	**4.0**	**0.6**	**0.4**	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		<0.01	<0.01	**0.03**	**0.15**	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	**0.02**	**0.03**	<0.01	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		<0.01	**2.90**	**0.05**	**0.16**	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		<0.01	**2.92**	**0.08**	**0.16**	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.03**	**0.05**	**0.03**	**0.18**	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.66**	**0.70**	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.02**	<0.02	**0.69**	**0.73**	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.12**	**0.03**	**4.70**	**5.27**	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.16**	**0.32**	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.12**	**5.60**	**9.47**	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.1**	**0.2**	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.31**	**0.26**	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**1.81**	**1.44**	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.16**	**0.19**	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.32**	**0.42**	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	**0.02**	<0.02	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW001_220526	0902_MW009_220525	0902_MW010_220525	0902_SW009_220526	----
				Sampling date / time	26-May-2022 13:36	25-May-2022 15:30	25-May-2022 10:25	26-May-2022 15:21	----
Compound	CAS Number	LOR	Unit		ES2218422-001	ES2218422-002	ES2218422-003	ES2218422-005	--------
					Result	Result	Result	Result	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW001_220526	0902_MW009_220525	0902_MW010_220525	0902_SW009_220526	----
				Sampling date / time	26-May-2022 13:36	25-May-2022 15:30	25-May-2022 10:25	26-May-2022 15:21	----
Compound	CAS Number	LOR	Unit		ES2218422-001	ES2218422-002	ES2218422-003	ES2218422-005	--------
					Result	Result	Result	Result	----
EP231P: PFAS Sums - Continued									
Sum of PFAS	----	0.01	µg/L		**0.14**	**0.15**	**14.5**	**19.0**	**----**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.12**	**0.15**	**10.3**	**14.7**	**----**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.12**	**0.15**	**13.7**	**18.0**	**----**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**93.6**	**96.0**	**97.7**	**95.3**	**----**
13C8-PFOA	----	0.02	%		**106**	**102**	**106**	**106**	**----**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW008_220526	----	----	----	----
				Sampling date / time	26-May-2022 14:18	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2218422-004	--------	--------	--------	--------
					Result	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		**0.04**	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		**0.544**	----	----	----	----
Iron	7439-89-6	0.05	mg/L		**2.43**	----	----	----	----
Bromine	7726-95-6	0.1	mg/L		**0.7**	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		**0.09**	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.14**	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.14**	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.18**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.04**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.04**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.24**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.09**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW008_220526	----	----	----	----
				Sampling date / time	26-May-2022 14:18	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2218422-004	--------	--------	--------	--------
					Result	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued									
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW008_220526	----	----	----	----
				Sampling date / time	26-May-2022 14:18	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2218422-004	--------	--------	--------	--------
					Result	----	----	----	----
EP231P: PFAS Sums - Continued									
Sum of PFAS	----	0.01	µg/L		**0.41**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.33**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.37**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**95.4**	----	----	----	----
13C8-PFOA	----	0.02	%		**102**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SURFACE WATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2218422**	Page	: 1 of 7
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 26-May-2022
Order number	: 60612562_5.1	Date Analysis Commenced	: 27-May-2022
C-O-C number	: 38174	Issue Date	: 02-Jun-2022
Sampler	: ANDREW SPOOR, MAT JENKINS		
Site	: 0902		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 5		
No. of samples analysed	: 5		

ilac-MRA NATA
Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4368546)									
ES2218517-001	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.312	0.311	0.0	0% - 20%
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	0.21	0.21	0.0	No Limit
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	0.1	<0.1	0.0	No Limit
ES2218517-023	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.111	0.108	2.1	0% - 20%
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	0.07	0.07	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	0.19	0.17	14.4	No Limit
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	1.7	1.7	0.0	0% - 50%
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 4372343)									
ES2218314-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.29	0.29	0.0	0% - 20%
ES2218481-002	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4365371)									
ES2218291-004	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
WN2206097-002	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4372344)									
ES2218314-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.93	0.90	3.5	0% - 20%
ES2218481-002	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4372340)									
ES2218313-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	9.75	9.93	1.8	0% - 20%
ES2218481-006	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.01	0.01	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4370595)									
ES2217854-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4370595) - continued									
ES2217854-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2217854-003	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4370595)									
ES2217854-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2217854-003	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4370595)									
ES2217854-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4370595) - continued									
ES2217854-001	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2217854-003	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4370595)									
ES2217854-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2217854-003	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4370595)									
ES2217854-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
ES2217854-003	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 4368546)								
EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	90.6	80.0	116
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	92.6	82.0	110
EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	92.8	82.0	112
EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4372343)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	108	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4365371)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	102	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4372344)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	102	91.0	113
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4372340)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	97.2	71.3	126
				<0.01	0.442 mg/L	118	71.3	126
				<0.01	1 mg/L	110	71.3	126
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4370595)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	93.2	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	101	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	98.4	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	109	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	104	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4370595)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	89.9	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	111	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	108	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	95.6	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	102	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	115	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	118	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	113	71.0	132

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4370595)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	106	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	108	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	89.0	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	110	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	93.9	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	125	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	119	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4370595)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	114	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	109	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	113	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	115	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
				Concentration	MS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 4368546)							
ES2218422-002	0902_MW009_220525	EG020A-F: Manganese	7439-96-5	1 mg/L	91.6	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4372343)							
ES2218314-001	Anonymous	EK055G: Ammonia as N	7664-41-7	1 mg/L	85.7	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4365371)							
ES2218291-004	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	97.3	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4372344)							
ES2218314-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	91.6	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4372340)							
ES2218314-001	Anonymous	EK067G: Total Phosphorus as P	----	2 mg/L	102	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4370595)							
ES2217854-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	112	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	106	71.0	127

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4370595) - continued							
ES2217854-002	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	108	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	99.4	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	106	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	101	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4370595)							
ES2217854-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	85.9	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	112	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	116	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	110	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	102	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	99.2	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	123	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	121	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	117	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	116	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4370595)							
ES2217854-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	111	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	107	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	93.5	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	117	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	114	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	116	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	121	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4370595)							
ES2217854-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	116	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	108	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	113	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	122	71.4	144

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2218422**	Page	: 1 of 5
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 26-May-2022
Site	: 0902	Issue Date	: 02-Jun-2022
Sampler	: ANDREW SPOOR, MAT JENKINS	No. of samples received	: 5
Order number	: 60612562_5.1	No. of samples analysed	: 5

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS								
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)								
0902_MW009_220525,	0902_MW010_220525	**25-May-2022**	**----**	----	----	**31-May-2022**	21-Nov-2022	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)								
0902_MW001_220526, 0902_SW009_220526	0902_SW008_220526,	**26-May-2022**	**----**	----	----	**31-May-2022**	22-Nov-2022	✓
EK055G: Ammonia as N by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK055G)								
0902_MW009_220525,	0902_MW010_220525	**25-May-2022**	**----**	----	----	**01-Jun-2022**	22-Jun-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK055G)								
0902_MW001_220526, 0902_SW009_220526	0902_SW008_220526,	**26-May-2022**	**----**	----	----	**01-Jun-2022**	23-Jun-2022	✓
EK057G: Nitrite as N by Discrete Analyser								
Clear Plastic Bottle - Natural (EK057G)								
0902_MW009_220525,	0902_MW010_220525	**25-May-2022**	**----**	----	----	**27-May-2022**	27-May-2022	✓
Clear Plastic Bottle - Natural (EK057G)								
0902_MW001_220526, 0902_SW009_220526	0902_SW008_220526,	**26-May-2022**	**----**	----	----	**27-May-2022**	28-May-2022	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK059G)								
0902_MW009_220525,	0902_MW010_220525	**25-May-2022**	**----**	----	----	**01-Jun-2022**	22-Jun-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK059G)								
0902_MW001_220526, 0902_SW009_220526	0902_SW008_220526,	**26-May-2022**	**----**	----	----	**01-Jun-2022**	23-Jun-2022	✓
EK067G: Total Phosphorus as P by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK067G)								
0902_MW009_220525,	0902_MW010_220525	**25-May-2022**	**01-Jun-2022**	22-Jun-2022	✓	**01-Jun-2022**	22-Jun-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK067G)								
0902_MW001_220526, 0902_SW009_220526	0902_SW008_220526,	**26-May-2022**	**01-Jun-2022**	23-Jun-2022	✓	**01-Jun-2022**	23-Jun-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0902_MW009_220525, 0902_MW010_220525	**25-May-2022**	**31-May-2022**	21-Nov-2022	✓	**01-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW001_220526, 0902_SW008_220526, 0902_SW009_220526	**26-May-2022**	**31-May-2022**	22-Nov-2022	✓	**01-Jun-2022**	22-Nov-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) 0902_MW009_220525, 0902_MW010_220525	**25-May-2022**	**31-May-2022**	21-Nov-2022	✓	**01-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW001_220526, 0902_SW008_220526, 0902_SW009_220526	**26-May-2022**	**31-May-2022**	22-Nov-2022	✓	**01-Jun-2022**	22-Nov-2022	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0902_MW009_220525, 0902_MW010_220525	**25-May-2022**	**31-May-2022**	21-Nov-2022	✓	**01-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW001_220526, 0902_SW008_220526, 0902_SW009_220526	**26-May-2022**	**31-May-2022**	22-Nov-2022	✓	**01-Jun-2022**	22-Nov-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0902_MW009_220525, 0902_MW010_220525	**25-May-2022**	**31-May-2022**	21-Nov-2022	✓	**01-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW001_220526, 0902_SW008_220526, 0902_SW009_220526	**26-May-2022**	**31-May-2022**	22-Nov-2022	✓	**01-Jun-2022**	22-Nov-2022	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X) 0902_MW009_220525, 0902_MW010_220525	**25-May-2022**	**31-May-2022**	21-Nov-2022	✓	**01-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW001_220526, 0902_SW008_220526, 0902_SW009_220526	**26-May-2022**	**31-May-2022**	22-Nov-2022	✓	**01-Jun-2022**	22-Nov-2022	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Ammonia as N by Discrete analyser	EK055G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	15	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	17	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	17	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	20	**15.00**	**15.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2218422**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Sepan.Mahamad@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 3
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 38174	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0902		
Sampler	: ANDREW SPOOR, MAT JENKINS		

Dates

Date Samples Received	: 26-May-2022 18:55	Issue Date	: 27-May-2022
Client Requested Due Date	: 02-Jun-2022	Scheduled Reporting Date	: **02-Jun-2022**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: -0.1'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 5 / 5

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EG020F Dissolved Metals by ICP/MS	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EK067G Total Phosphorus as P By Discrete Analyser	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-04 Nitrite and Nitrate
ES2218422-001	26-May-2022 13:36	0902_MW001_220526	✓	✓	✓	✓	✓
ES2218422-002	25-May-2022 15:30	0902_MW009_220525	✓	✓	✓	✓	✓
ES2218422-003	25-May-2022 10:25	0902_MW010_220525	✓	✓	✓	✓	✓
ES2218422-004	26-May-2022 14:18	0902_SW008_220526	✓	✓	✓	✓	✓
ES2218422-005	26-May-2022 15:21	0902_SW009_220526	✓	✓	✓	✓	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

ANDREW SPOOR

- *AU Certificate of Analysis - NATA (COA)	Email	Andrew.Spoor@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Andrew.Spoor@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Andrew.Spoor@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Andrew.Spoor@aecom.com
- Chain of Custody (CoC) (COC)	Email	Andrew.Spoor@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Andrew.Spoor@aecom.com
- EDI Format - XTab (XTAB)	Email	Andrew.Spoor@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Andrew.Spoor@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Geoff.Tredinnick@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	mat.jenkins@aecom.com

NICOLA TOMLIN

- *AU Certificate of Analysis - NATA (COA)	Email	nicola.tomlin@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	nicola.tomlin@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	nicola.tomlin@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	nicola.tomlin@aecom.com
- Chain of Custody (CoC) (COC)	Email	nicola.tomlin@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	nicola.tomlin@aecom.com
- EDI Format - XTab (XTAB)	Email	nicola.tomlin@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	nicola.tomlin@aecom.com

TAT

CHAIN OF CUSTODY

(ALS) COC#: 38174 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 26/5/22 1855	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASMGMT

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Andrew Spoor QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: -0.1 °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW001_22052		26/05/2022 01:36 PM	Water	ALS: 0 Non ALS: 0	No	X	X	please at NT01 and NT02	DID NOT SCAN
002	0902_MW009_220525		25/05/2022 03:30 PM	Water	ALS: 6 Non ALS: 0	No	X	X	please at NT01 and NT02	
003	0902_MW010_220525		25/05/2022 10:25 AM	Water	ALS: 6 Non ALS: 0	No	X	X	please at NT01 and NT02	
004	0902_SW008_220526		26/05/2022 02:18 PM	Water	ALS: 6 Non ALS: 0	No	X	X		
005	0902_SW009_220526		26/05/2022 03:21 PM	Water	ALS: 6 Non ALS: 0	No	X	X		

Environmental Division
Sydney
Work Order Reference
ES2218422

Telephone : +61-2-8784 8555

CHAIN OF CUSTODY

(ALS) COC#: 38174 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASMGMT

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS: 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
002	0902_MW009_220525	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121056728	Purple	No	
002	0902_MW009_220525	HDPE (no PTFE)	20 mL	00350821017346	Grey	No	
002	0902_MW009_220525	HDPE (no PTFE)	20 mL	00350821041550	Grey	No	
002	0902_MW009_220525	HDPE (no PTFE)	20 mL	00350821041558	Grey	No	
002	0902_MW009_220525	Clear Plastic Bottle - Nitric Acid, Filtered	60 mL	00122111038472	Red	No	
002	0902_MW009_220525	Clear Plastic Bottle - Natural	500 mL	00070621059919	Green	No	
003	0902_MW010_220525	HDPE (no PTFE)	20 mL	00350821041449	Grey	No	
003	0902_MW010_220525	Clear Plastic Bottle - Nitric Acid, Filtered	60 mL	00122111038972	Red	No	
003	0902_MW010_220525	HDPE (no PTFE)	20 mL	00350821041434	Grey	No	
003	0902_MW010_220525	HDPE (no PTFE)	20 mL	00350821041432	Grey	No	
003	0902_MW010_220525	Clear Plastic Bottle - Natural	500 mL	00070621085749	Green	No	
003	0902_MW010_220525	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121057120	Purple	No	
004	0902_SW008_220526	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121056889	Purple	No	
004	0902_SW008_220526	Clear Plastic Bottle - Nitric Acid, Filtered	60 mL	00122111038475	Red	No	
004	0902_SW008_220526	HDPE (no PTFE)	20 mL	00350821017175	Grey	No	
004	0902_SW008_220526	Clear Plastic Bottle - Natural	500 mL	00070621059923	Green	No	
004	0902_SW008_220526	HDPE (no PTFE)	20 mL	00350821041564	Grey	No	
004	0902_SW008_220526	HDPE (no PTFE)	20 mL	00350821017086	Grey	No	
005	0902_SW009_220526	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121056978	Purple	No	
005	0902_SW009_220526	Clear Plastic Bottle - Natural	500 mL	00070621085519	Green	No	
005	0902_SW009_220526	Clear Plastic Bottle - Nitric Acid, Filtered	60 mL	00122111038462	Red	No	
005	0902_SW009_220526	HDPE (no PTFE)	20 mL	00350821017367	Grey	No	
005	0902_SW009_220526	HDPE (no PTFE)	20 mL	00350821017084	Grey	No	
005	0902_SW009_220526	HDPE (no PTFE)	20 mL	00350821017037	Grey	No	

Total Bottle Count: ALS: 24, Non ALS: 0

Thursday, May 26, 2022 7:01:38 AM

Soy Stepho

From: Khaleda Ataei
Sent: Thursday, 26 May 2022 6:36 PM
To: Soy Stepho; Andrew Makar; Samples Sydney
Subject: FW: [EXTERNAL] - Incoming samples with short holding time

Importance: High

Hey team,

Could you please ensure the samples that came 15 mins ago from Aecom are processed ASAP as they have very short holding time?

Thanks

Kind regards,

right solutions. right partner.

Khaleda Ataei
Project Manager, Environmental
Sydney, NSW

O: +61 2 8784 8555
D: +61 2 8784 8603
Khaleda.Ataei@alsglobal.com
277-289 Woodpark Road
Smithfield NSW 2164 AUSTRALIA

alsglobal.com

From: Jenkins, Mat <mat.jenkins@aecom.com>
Sent: Thursday, 26 May 2022 5:00 PM
To: ALSEnviro Sydney <ALSEnviro.Sydney@ALSGlobal.com>
Cc: Spoor, Andrew <Andrew.Spoor@aecom.com>; Tomlin, Nicola <Nicola.Tomlin@aecom.com>
Subject: [EXTERNAL] - Incoming samples with short holding time

CAUTION: This email originated from outside of ALS. Do not click links or open attachments unless you recognize the sender and are sure content is relevant to you.

Hey Team,

We have some samples being picked up by courier today, that have quite short holding times. The team has just split the COC from compass

Samples collected: Yesterday and Today
Analytes with short holding time: Nitrite and Nitrate

COC: 38174

Please let me know if there are any issues logging these in time

Mat Jenkins

Data Scientist, ANZ NAC
M +61 488 214 697
mat.jenkins@aecom.com

AECOM
aecom.com

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LinkedIn | Twitter | Facebook | Instagram

Please consider the environment before printing this email.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2219017-AA**	Page	: 1 of 70
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 31-May-2022 18:20
Order number	: 60612562_5.1	Date Analysis Commenced	: 31-May-2022
C-O-C number	: 37829	Issue Date	: 24-Jun-2022 12:46
Sampler	: ANDREW SPOOR, MAT JENKINS		
Site	: NSW_0902_PFASOMP		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 132		
No. of samples analysed	: 132		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X: Poor duplicate precision for various analytes on sample ES2219017_077 due to sample heterogenity confirmed by re-extraction and re-analysis.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- Amendment (24/06/2022):This report has been amended following the client request to split report. All analysis results are as per the previous report.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW002_220526	0902_MW004_220526	0902_MW005_220526	0902_MW007_220525	0902_MW008_220525
				Sampling date / time	26-May-2022 12:52	26-May-2022 11:37	26-May-2022 10:51	25-May-2022 10:52	25-May-2022 08:59
					ES2219017-001	ES2219017-002	ES2219017-003	ES2219017-004	ES2219017-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.11**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.10**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	**0.04**	**0.07**	**0.43**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	**0.10**	**0.01**	**0.07**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.07**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW002_220526	0902_MW004_220526	0902_MW005_220526	0902_MW007_220525	0902_MW008_220525
				Sampling date / time	26-May-2022 12:52	26-May-2022 11:37	26-May-2022 10:51	25-May-2022 10:52	25-May-2022 08:59
Compound	CAS Number	LOR	Unit		ES2219017-001	ES2219017-002	ES2219017-003	ES2219017-004	ES2219017-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	**0.14**	**0.08**	**0.78**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	**0.14**	**0.08**	**0.50**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	**0.14**	**0.08**	**0.68**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**112**	**116**	**110**	**104**	**114**
13C8-PFOA	----	0.02	%		**112**	**117**	**119**	**113**	**112**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW012_220527	0902_MW013_220527	0902_MW014_220527	0902_MW015_220527	0902_MW016_220526
				Sampling date / time	27-May-2022 12:17	27-May-2022 12:56	27-May-2022 13:38	27-May-2022 13:53	26-May-2022 10:10
					ES2219017-006	ES2219017-007	ES2219017-008	ES2219017-009	ES2219017-010
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.40**	**0.34**	**0.39**	**0.41**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.42**	**0.27**	**0.39**	**0.43**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**2.13**	**1.92**	**1.56**	**3.27**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.04**	**0.02**	**0.04**	**0.19**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.41**	**0.10**	**0.10**	**3.02**	**0.01**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.08**	**0.05**	**0.07**	**0.09**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.30**	**0.26**	**0.32**	**0.43**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.04**	**0.02**	**0.03**	**0.06**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.06**	**0.02**	**0.02**	**0.13**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW012_220527	0902_MW013_220527	0902_MW014_220527	0902_MW015_220527	0902_MW016_220526
				Sampling date / time	27-May-2022 12:17	27-May-2022 12:56	27-May-2022 13:38	27-May-2022 13:53	26-May-2022 10:10
Compound	CAS Number	LOR	Unit		ES2219017-006	ES2219017-007	ES2219017-008	ES2219017-009	ES2219017-010
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**3.88**	**3.00**	**2.92**	**8.03**	**0.01**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**2.54**	**2.02**	**1.66**	**6.29**	**0.01**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**3.42**	**2.71**	**2.49**	**7.41**	**0.01**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**115**	**106**	**107**	**118**	**113**
13C8-PFOA	----	0.02	%		**104**	**101**	**118**	**115**	**115**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW017_220527	0902_MW020_220527	0902_MW021_220527	0902_MW022_220530	0902_MW024_220525
				Sampling date / time	27-May-2022 13:18	27-May-2022 10:57	27-May-2022 09:03	30-May-2022 11:47	25-May-2022 14:55
Compound	CAS Number	LOR	Unit		ES2219017-011	ES2219017-012	ES2219017-013	ES2219017-014	ES2219017-016
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	----	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	----	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	----	472	----
Total Alkalinity as CaCO3	----	1	mg/L		----	----	----	472	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	----	45	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	----	1040	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	----	128	----
Magnesium	7439-95-4	1	mg/L		----	----	----	105	----
Sodium	7440-23-5	1	mg/L		----	----	----	541	----
Potassium	7440-09-7	1	mg/L		----	----	----	2	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	----	<0.01	----
Manganese	7439-96-5	0.001	mg/L		----	----	----	0.889	----
Iron	7439-89-6	0.05	mg/L		----	----	----	1.96	----
Bromine	7726-95-6	0.1	mg/L		----	----	----	2.5	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	----	0.13	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	----	<0.01	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	----	0.02	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	----	0.02	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	----	0.49	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	----	----	39.7	----
ø Total Cations	----	0.01	meq/L		----	----	----	38.6	----
ø Ionic Balance	----	0.01	%		----	----	----	1.39	----
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW017_220527	0902_MW020_220527	0902_MW021_220527	0902_MW022_220530	0902_MW024_220525
				Sampling date / time	27-May-2022 13:18	27-May-2022 10:57	27-May-2022 09:03	30-May-2022 11:47	25-May-2022 14:55
Compound	CAS Number	LOR	Unit		ES2219017-011	ES2219017-012	ES2219017-013	ES2219017-014	ES2219017-016
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.46**	**0.44**	**0.09**	**0.23**	**0.22**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.55**	**0.46**	**0.14**	**0.29**	**0.17**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**4.37**	**3.32**	**2.15**	**2.06**	**0.36**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.10**	**0.04**	**0.10**	**0.08**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**1.41**	**0.22**	**3.64**	**1.67**	**0.12**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**0.2**	<0.1	**0.1**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.03**	**0.15**	**0.05**	**0.03**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.05**	**0.12**	**0.36**	**0.23**	**0.12**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.12**	**0.04**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.04**	**0.03**	**0.27**	**0.06**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	**0.03**	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW017_220527	0902_MW020_220527	0902_MW021_220527	0902_MW022_220530	0902_MW024_220525
				Sampling date / time	27-May-2022 13:18	27-May-2022 10:57	27-May-2022 09:03	30-May-2022 11:47	25-May-2022 14:55
Compound	CAS Number	LOR	Unit		ES2219017-011	ES2219017-012	ES2219017-013	ES2219017-014	ES2219017-016
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**7.18**	**4.66**	**7.15**	**4.71**	**1.02**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**5.78**	**3.54**	**5.79**	**3.73**	**0.48**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**6.53**	**4.16**	**6.88**	**4.34**	**0.85**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**109**	**115**	**107**	**115**	**118**
13C8-PFOA	----	0.02	%		**110**	**116**	**112**	**112**	**107**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW025_220524	0902_MW026_220524	0902_MW027_220525	0902_MW028_220525	0902_MW030_220526
				Sampling date / time	24-May-2022 16:32	24-May-2022 15:52	25-May-2022 14:28	25-May-2022 12:36	26-May-2022 08:36
					ES2219017-017	ES2219017-018	ES2219017-019	ES2219017-020	ES2219017-021
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.61**	**0.23**	**2.12**	**0.17**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.80**	**0.26**	**2.84**	**0.18**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.05**	**4.82**	**1.24**	**9.73**	**1.03**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.24**	**0.03**	**0.03**	**0.03**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**1.13**	**0.49**	**0.09**	**0.39**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**0.4**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.14**	**0.03**	**0.47**	**0.02**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.60**	**0.17**	**2.87**	**0.16**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.12**	**0.02**	**0.54**	**0.04**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.21**	**0.02**	**0.14**	**0.07**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW025_220524	0902_MW026_220524	0902_MW027_220525	0902_MW028_220525	0902_MW030_220526
				Sampling date / time	24-May-2022 16:32	24-May-2022 15:52	25-May-2022 14:28	25-May-2022 12:36	26-May-2022 08:36
Compound	CAS Number	LOR	Unit		ES2219017-017	ES2219017-018	ES2219017-019	ES2219017-020	ES2219017-021
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.05**	**8.67**	**2.49**	**19.2**	**2.09**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.05**	**5.95**	**1.73**	**9.82**	**1.42**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.05**	**7.63**	**2.20**	**16.4**	**1.88**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**108**	**113**	**116**	**109**	**117**
13C8-PFOA	----	0.02	%		**109**	**112**	**118**	**112**	**113**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW032_220524	0902_MW033_220524	0902_MW034_220524	0902_MW036_220527	0902_MW040_220525
				Sampling date / time	24-May-2022 12:40	24-May-2022 12:56	24-May-2022 12:33	27-May-2022 14:52	25-May-2022 08:43
					ES2219017-022	ES2219017-023	ES2219017-024	ES2219017-025	ES2219017-026
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**1.30**	<0.02	**0.12**	**0.20**	**1.22**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**1.92**	<0.02	**0.14**	**0.21**	**1.83**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**9.51**	**0.03**	**0.63**	**0.97**	**13.1**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.37**	<0.02	**0.03**	**0.02**	**0.99**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**2.99**	**0.26**	**0.16**	**0.08**	**66.5**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**1.15**
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**0.5**	<0.1	<0.1	<0.1	**0.4**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.21**	**0.08**	**0.03**	**0.03**	**0.38**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**1.54**	**0.07**	**0.13**	**0.14**	**2.04**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.17**	**0.06**	**0.03**	<0.02	**0.26**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.30**	**0.04**	**0.03**	**0.02**	**0.59**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.02**	<0.02	<0.02	**0.07**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.04**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.03**
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.22**
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW032_220524	0902_MW033_220524	0902_MW034_220524	0902_MW036_220527	0902_MW040_220525
				Sampling date / time	24-May-2022 12:40	24-May-2022 12:56	24-May-2022 12:33	27-May-2022 14:52	25-May-2022 08:43
Compound	CAS Number	LOR	Unit		ES2219017-022	ES2219017-023	ES2219017-024	ES2219017-025	ES2219017-026
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**18.8**	**0.56**	**1.30**	**1.67**	**88.8**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**12.5**	**0.29**	**0.79**	**1.05**	**79.6**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**16.5**	**0.54**	**1.13**	**1.44**	**84.5**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**113**	**107**	**112**	**102**	**105**
13C8-PFOA	----	0.02	%		**107**	**114**	**112**	**110**	**106**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW041_220525	0902_MW042_220525	0902_MW043_220525	0902_MW046_220524	0902_MW047_220525
				Sampling date / time	25-May-2022 09:47	25-May-2022 13:22	25-May-2022 10:23	24-May-2022 16:20	25-May-2022 11:22
					ES2219017-027	ES2219017-028	ES2219017-029	ES2219017-030	ES2219017-031
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.10**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.12**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.08**	**0.01**	**0.02**	**0.05**	**0.60**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.04**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.08**	**0.12**	**0.15**	<0.01	**0.82**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.02**	<0.02	<0.02	<0.02	**0.09**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.03**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW041_220525	0902_MW042_220525	0902_MW043_220525	0902_MW046_220524	0902_MW047_220525
				Sampling date / time	25-May-2022 09:47	25-May-2022 13:22	25-May-2022 10:23	24-May-2022 16:20	25-May-2022 11:22
Compound	CAS Number	LOR	Unit		ES2219017-027	ES2219017-028	ES2219017-029	ES2219017-030	ES2219017-031
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.18**	**0.13**	**0.17**	**0.05**	**1.80**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.16**	**0.13**	**0.17**	**0.05**	**1.42**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.18**	**0.13**	**0.17**	**0.05**	**1.64**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**113**	**111**	**102**	**107**
13C8-PFOA	----	0.02	%		**106**	**110**	**113**	**108**	**107**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW048_220525	0902_MW050_220525	0902_MW051_220525	0902_MW052_220525	0902_MW053_220526
				Sampling date / time	25-May-2022 11:08	25-May-2022 14:11	25-May-2022 11:46	25-May-2022 11:34	26-May-2022 09:10
					ES2219017-032	ES2219017-033	ES2219017-034	ES2219017-035	ES2219017-036
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.10**	**1.15**	**48.5**	**0.25**	**0.05**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.11**	**1.33**	**64.2**	**0.24**	**0.04**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.25**	**5.51**	**519**	**0.82**	**0.35**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.42**	**64.6**	**0.04**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**10.2**	**274**	**0.71**	**0.12**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	**0.07**	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.4**	**12.7**	<0.1	**0.2**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.02**	**0.32**	**12.3**	**0.05**	**0.09**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.14**	**1.57**	**81.5**	**0.32**	**0.20**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.24**	**11.3**	**0.02**	**0.10**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.37**	**34.2**	**0.04**	**0.13**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	**0.13**	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	**0.03**	**0.03**	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW048_220525	0902_MW050_220525	0902_MW051_220525	0902_MW052_220525	0902_MW053_220526
				Sampling date / time	25-May-2022 11:08	25-May-2022 14:11	25-May-2022 11:46	25-May-2022 11:34	26-May-2022 09:10
Compound	CAS Number	LOR	Unit		ES2219017-032	ES2219017-033	ES2219017-034	ES2219017-035	ES2219017-036
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	**0.15**	**0.11**	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.62**	**21.7**	**1120**	**2.49**	**1.28**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.25**	**15.7**	**793**	**1.53**	**0.47**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.51**	**19.9**	**994**	**2.21**	**1.24**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**117**	**109**	**112**	**114**	**102**
13C8-PFOA	----	0.02	%		**110**	**111**	**114**	**114**	**112**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW054_220524	0902_MW056_220525	0902_MW057_220531	0902_MW059_220531	0902_MW060_220525
				Sampling date / time	24-May-2022 10:05	25-May-2022 17:02	31-May-2022 11:12	31-May-2022 14:35	25-May-2022 16:29
					ES2219017-037	ES2219017-038	ES2219017-039	ES2219017-040	ES2219017-041
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.09**	<0.02	**0.10**	**2.72**	**0.16**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.06**	<0.02	**0.08**	**2.38**	**0.20**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.22**	**0.01**	**0.66**	**3.81**	**1.58**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.02**	<0.02	**0.06**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.02**	**0.32**	**0.04**	**0.39**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.1**	**0.4**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.05**	**0.43**	**0.04**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.04**	<0.02	**0.13**	**2.92**	**0.24**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.04**	**0.37**	**0.04**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.07**	**0.03**	**0.08**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW054_220524	0902_MW056_220525	0902_MW057_220531	0902_MW059_220531	0902_MW060_220525
				Sampling date / time	24-May-2022 10:05	25-May-2022 17:02	31-May-2022 11:12	31-May-2022 14:35	25-May-2022 16:29
Compound	CAS Number	LOR	Unit		ES2219017-037	ES2219017-038	ES2219017-039	ES2219017-040	ES2219017-041
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.41**	**0.03**	**1.57**	**13.1**	**2.79**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.22**	**0.03**	**0.98**	**3.85**	**1.97**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.35**	**0.03**	**1.47**	**10.7**	**2.53**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**114**	**116**	**113**	**113**	**112**
13C8-PFOA	----	0.02	%		**114**	**115**	**110**	**113**	**115**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW061_220525	0902_MW062_220527	0902_MW063_220527	0902_MW064_220524	0902_MW065_220524
				Sampling date / time	25-May-2022 16:41	27-May-2022 08:10	27-May-2022 08:24	24-May-2022 14:37	24-May-2022 14:55
					ES2219017-042	ES2219017-043	ES2219017-044	ES2219017-045	ES2219017-046
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.06**	<0.02	**1.43**	**0.08**	**0.07**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.04**	<0.02	**1.54**	**0.10**	**0.05**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.37**	**0.07**	**7.26**	**0.71**	**0.29**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.41**	**0.04**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.34**	**0.33**	**2.49**	**0.30**	**0.01**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.3**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.06**	**0.04**	**0.36**	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.11**	**0.05**	**2.19**	**0.02**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.04**	<0.02	**0.35**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.05**	<0.01	**0.46**	**0.02**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW061_220525	0902_MW062_220527	0902_MW063_220527	0902_MW064_220524	0902_MW065_220524
				Sampling date / time	25-May-2022 16:41	27-May-2022 08:10	27-May-2022 08:24	24-May-2022 14:37	24-May-2022 14:55
Compound	CAS Number	LOR	Unit		ES2219017-042	ES2219017-043	ES2219017-044	ES2219017-045	ES2219017-046
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.07**	**0.49**	**16.8**	**1.27**	**0.42**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.71**	**0.40**	**9.75**	**1.01**	**0.30**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.03**	**0.49**	**14.8**	**1.13**	**0.37**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**116**	**110**	**117**	**105**
13C8-PFOA	----	0.02	%		**109**	**113**	**113**	**116**	**107**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW066_220524	0902_MW067_220526	0902_MW068_220526	0902_MW069_220527	0902_MW070_220526
				Sampling date / time	24-May-2022 15:20	26-May-2022 16:42	26-May-2022 19:59	27-May-2022 07:55	26-May-2022 09:29
					ES2219017-047	ES2219017-048	ES2219017-049	ES2219017-050	ES2219017-051
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.09**	<0.02	**0.29**	**0.07**	**0.15**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.11**	<0.02	**0.45**	**0.04**	**0.03**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.74**	**0.03**	**3.87**	**0.29**	**0.30**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.04**	<0.02	**0.15**	<0.02	**0.02**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.41**	**0.02**	**1.14**	**0.52**	**1.15**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.07**	<0.02	**0.04**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.04**	<0.02	**0.48**	**0.05**	**0.10**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.07**	<0.02	**0.03**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.02**	<0.01	**0.21**	**0.03**	**0.05**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW066_220524	0902_MW067_220526	0902_MW068_220526	0902_MW069_220527	0902_MW070_220526
				Sampling date / time	24-May-2022 15:20	26-May-2022 16:42	26-May-2022 19:59	27-May-2022 07:55	26-May-2022 09:29
Compound	CAS Number	LOR	Unit		ES2219017-047	ES2219017-048	ES2219017-049	ES2219017-050	ES2219017-051
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.45**	**0.05**	**6.73**	**1.00**	**1.87**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.15**	**0.05**	**5.01**	**0.81**	**1.45**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.30**	**0.05**	**6.13**	**0.96**	**1.82**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**117**	**103**	**111**	**107**	**110**
13C8-PFOA	----	0.02	%		**114**	**104**	**106**	**112**	**108**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW071_220526	0902_MW072_220524	0902_MW073_220524	0902_MW074_220524	0902_MW075_220530
				Sampling date / time	26-May-2022 09:37	24-May-2022 15:40	24-May-2022 13:11	24-May-2022 13:20	30-May-2022 12:23
Compound	CAS Number	LOR	Unit		ES2219017-052	ES2219017-053	ES2219017-054	ES2219017-055	ES2219017-056
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	----	----	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	----	----	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	----	----	**90**
Total Alkalinity as CaCO3	----	1	mg/L		----	----	----	----	**90**
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	----	----	**4**
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	----	----	**89**
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	----	----	**13**
Magnesium	7439-95-4	1	mg/L		----	----	----	----	**12**
Sodium	7440-23-5	1	mg/L		----	----	----	----	**65**
Potassium	7440-09-7	1	mg/L		----	----	----	----	<1
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	----	----	<0.01
Manganese	7439-96-5	0.001	mg/L		----	----	----	----	**0.248**
Iron	7439-89-6	0.05	mg/L		----	----	----	----	<0.05
Bromine	7726-95-6	0.1	mg/L		----	----	----	----	**0.2**
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	----	----	<0.01
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	----	----	**0.06**
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	----	----	**3.42**
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	----	----	**3.48**
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	----	----	**0.06**
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	----	----	----	**4.39**
ø Total Cations	----	0.01	meq/L		----	----	----	----	**4.46**
ø Ionic Balance	----	0.01	%		----	----	----	----	**0.81**
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW071_220526	0902_MW072_220524	0902_MW073_220524	0902_MW074_220524	0902_MW075_220530
				Sampling date / time	26-May-2022 09:37	24-May-2022 15:40	24-May-2022 13:11	24-May-2022 13:20	30-May-2022 12:23
					ES2219017-052	ES2219017-053	ES2219017-054	ES2219017-055	ES2219017-056
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.11**	**6.20**	**0.22**	**4.92**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.03**	**5.43**	**1.13**	**5.74**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.25**	**36.4**	**26.1**	**28.7**	**0.01**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**2.36**	**3.68**	**1.57**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.75**	**32.1**	**1.53**	**6.34**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.9**	**0.2**	**3.0**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.05**	**0.84**	**0.12**	**0.94**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.09**	**6.22**	**1.25**	**7.51**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.03**	**0.83**	**0.26**	**0.85**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.03**	**2.14**	**1.90**	**1.27**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW071_220526	0902_MW072_220524	0902_MW073_220524	0902_MW074_220524	0902_MW075_220530
				Sampling date / time	26-May-2022 09:37	24-May-2022 15:40	24-May-2022 13:11	24-May-2022 13:20	30-May-2022 12:23
Compound	CAS Number	LOR	Unit		ES2219017-052	ES2219017-053	ES2219017-054	ES2219017-055	ES2219017-056
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.34**	**93.4**	**36.4**	**60.8**	**0.01**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.00**	**68.5**	**27.6**	**35.0**	**0.01**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.31**	**85.6**	**31.6**	**53.5**	**0.01**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**106**	**115**	**111**	**108**
13C8-PFOA	----	0.02	%		**118**	**108**	**112**	**110**	**116**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW076_220531	0902_MW077_220531	0902_MW078_220531	0902_MW079_220531	0902_MW081_220530
				Sampling date / time	31-May-2022 13:31	31-May-2022 13:48	31-May-2022 11:50	31-May-2022 12:15	30-May-2022 12:49
Compound	CAS Number	LOR	Unit		ES2219017-057	ES2219017-058	ES2219017-059	ES2219017-060	ES2219017-061
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	----	----	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	----	----	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	----	----	312
Total Alkalinity as CaCO3	----	1	mg/L		----	----	----	----	312
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	----	----	43
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	----	----	205
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	----	----	25
Magnesium	7439-95-4	1	mg/L		----	----	----	----	23
Sodium	7440-23-5	1	mg/L		----	----	----	----	210
Potassium	7440-09-7	1	mg/L		----	----	----	----	<1
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	----	----	<0.01
Manganese	7439-96-5	0.001	mg/L		----	----	----	----	1.93
Iron	7439-89-6	0.05	mg/L		----	----	----	----	0.82
Bromine	7726-95-6	0.1	mg/L		----	----	----	----	0.7
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	----	----	0.02
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	----	----	0.06
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	----	----	0.32
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	----	----	0.38
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	----	----	0.10
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	----	----	----	12.9
ø Total Cations	----	0.01	meq/L		----	----	----	----	12.3
ø Ionic Balance	----	0.01	%		----	----	----	----	2.53
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW076_220531	0902_MW077_220531	0902_MW078_220531	0902_MW079_220531	0902_MW081_220530
				Sampling date / time	31-May-2022 13:31	31-May-2022 13:48	31-May-2022 11:50	31-May-2022 12:15	30-May-2022 12:49
					ES2219017-057	ES2219017-058	ES2219017-059	ES2219017-060	ES2219017-061
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.07**	**0.16**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	**0.09**	**0.18**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.02**	**0.03**	**0.56**	**1.25**	**0.03**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.03**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.03**	**0.01**	**0.52**	**0.07**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.1**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.05**	**0.04**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.14**	**0.14**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.02**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW076_220531	0902_MW077_220531	0902_MW078_220531	0902_MW079_220531	0902_MW081_220530
				Sampling date / time	31-May-2022 13:31	31-May-2022 13:48	31-May-2022 11:50	31-May-2022 12:15	30-May-2022 12:49
Compound	CAS Number	LOR	Unit		ES2219017-057	ES2219017-058	ES2219017-059	ES2219017-060	ES2219017-061
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.02**	**0.06**	**1.02**	**2.36**	**0.10**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.02**	**0.06**	**0.57**	**1.77**	**0.10**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.02**	**0.06**	**0.93**	**2.15**	**0.10**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**107**	**113**	**105**	**107**	**112**
13C8-PFOA	----	0.02	%		**113**	**70.7**	**79.3**	**78.1**	**85.2**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW082_220530	0902_MW091_220530	0902_MW092_220531	0902_MW097_220530	0902_MW098_220530
				Sampling date / time	30-May-2022 13:23	30-May-2022 16:14	31-May-2022 07:17	30-May-2022 15:40	30-May-2022 15:01
Compound	CAS Number	LOR	Unit		ES2219017-062	ES2219017-063	ES2219017-064	ES2219017-065	ES2219017-066
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	----	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	----	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		254	44	----	34	217
Total Alkalinity as CaCO3	----	1	mg/L		254	44	----	34	217
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		26	27	----	14	68
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		313	10	----	9	664
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		50	14	----	8	75
Magnesium	7439-95-4	1	mg/L		37	6	----	3	65
Sodium	7440-23-5	1	mg/L		173	16	----	10	322
Potassium	7440-09-7	1	mg/L		<1	7	----	3	2
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	<0.01	----	0.10	<0.01
Manganese	7439-96-5	0.001	mg/L		1.13	0.009	----	0.212	1.32
Iron	7439-89-6	0.05	mg/L		<0.05	<0.05	----	0.24	8.70
Bromine	7726-95-6	0.1	mg/L		0.7	<0.1	----	<0.1	1.4
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		<0.01	<0.01	----	0.07	0.91
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	0.01	----	0.02	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		<0.01	6.76	----	0.98	2.09
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		<0.01	6.77	----	1.00	2.09
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		0.04	0.06	----	0.54	0.16
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		14.4	1.72	----	1.22	24.5
ø Total Cations	----	0.01	meq/L		13.1	2.07	----	1.16	23.1
ø Ionic Balance	----	0.01	%		5.02	----	----	----	2.80
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW082_220530	0902_MW091_220530	0902_MW092_220531	0902_MW097_220530	0902_MW098_220530
				Sampling date / time	30-May-2022 13:23	30-May-2022 16:14	31-May-2022 07:17	30-May-2022 15:40	30-May-2022 15:01
Compound	CAS Number	LOR	Unit		ES2219017-062	ES2219017-063	ES2219017-064	ES2219017-065	ES2219017-066
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.06**	<0.01	<0.01	**0.01**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.03**	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW082_220530	0902_MW091_220530	0902_MW092_220531	0902_MW097_220530	0902_MW098_220530
				Sampling date / time	30-May-2022 13:23	30-May-2022 16:14	31-May-2022 07:17	30-May-2022 15:40	30-May-2022 15:01
Compound	CAS Number	LOR	Unit		ES2219017-062	ES2219017-063	ES2219017-064	ES2219017-065	ES2219017-066
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.09**	<0.01	<0.01	**0.01**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.09**	<0.01	<0.01	**0.01**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.09**	<0.01	<0.01	**0.01**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**105**	**108**	**112**	**95.6**
13C8-PFOA	----	0.02	%		**82.6**	**80.0**	**79.7**	**87.4**	**88.3**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW106_220531	0902_MW107D_220524	0902_MW108_220526	0902_MW109_220527	0902_MW110_220527
				Sampling date / time	31-May-2022 12:30	24-May-2022 10:42	26-May-2022 08:50	27-May-2022 09:55	27-May-2022 10:58
					ES2219017-067	ES2219017-068	ES2219017-070	ES2219017-071	ES2219017-072
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.04**	**0.67**	**0.25**	**0.30**	**0.43**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.05**	**0.80**	**0.24**	**0.31**	**0.46**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.50**	**5.85**	**0.97**	**1.97**	**2.26**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.30**	<0.02	**0.13**	**0.04**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.07**	**1.69**	**0.08**	**3.14**	**0.11**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.1**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.20**	**0.04**	**0.10**	**0.11**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**1.03**	**0.20**	**0.38**	**0.45**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.17**	**0.02**	**0.09**	**0.07**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.16**	**0.02**	**0.12**	**0.05**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW106_220531	0902_MW107D_220524	0902_MW108_220526	0902_MW109_220527	0902_MW110_220527
				Sampling date / time	31-May-2022 12:30	24-May-2022 10:42	26-May-2022 08:50	27-May-2022 09:55	27-May-2022 10:58
Compound	CAS Number	LOR	Unit		ES2219017-067	ES2219017-068	ES2219017-070	ES2219017-071	ES2219017-072
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.66**	**11.0**	**1.82**	**6.54**	**3.98**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.57**	**7.54**	**1.05**	**5.11**	**2.37**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.61**	**9.87**	**1.58**	**6.10**	**3.48**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**104**	**103**	**108**	**107**	**105**
13C8-PFOA	----	0.02	%		**85.0**	**81.3**	**84.2**	**80.6**	**78.1**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW111_220526	0902_MW112_220526	0902_MW113_220526	0902_MW114_220526	0902_SW007_220526
				Sampling date / time	26-May-2022 10:56	26-May-2022 11:27	26-May-2022 12:59	26-May-2022 13:50	26-May-2022 13:19
					ES2219017-073	ES2219017-074	ES2219017-075	ES2219017-076	ES2219017-100
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.98**	<0.02	<0.02	**0.02**	**0.03**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.52**	<0.02	<0.02	**0.02**	**0.02**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.69**	<0.01	<0.01	**0.15**	**0.22**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.04**	<0.01	<0.01	<0.01	**0.10**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.08**	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.15**	<0.02	<0.02	<0.02	**0.06**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW111_220526	0902_MW112_220526	0902_MW113_220526	0902_MW114_220526	0902_SW007_220526
				Sampling date / time	26-May-2022 10:56	26-May-2022 11:27	26-May-2022 12:59	26-May-2022 13:50	26-May-2022 13:19
Compound	CAS Number	LOR	Unit		ES2219017-073	ES2219017-074	ES2219017-075	ES2219017-076	ES2219017-100
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**2.46**	<0.01	<0.01	**0.19**	**0.43**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.73**	<0.01	<0.01	**0.15**	**0.32**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.94**	<0.01	<0.01	**0.17**	**0.41**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**114**	**109**	**110**	**108**	**111**
13C8-PFOA	----	0.02	%		**76.5**	**72.9**	**76.0**	**73.2**	**99.4**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_QC100_220524	0902_QC102_220524	0902_QC103_220525	0902_QC105_220526	0902_QC106_220526
				Sampling date / time	24-May-2022 10:07	24-May-2022 15:21	25-May-2022 14:29	26-May-2022 13:20	26-May-2022 13:57
					ES2219017-120	ES2219017-122	ES2219017-123	ES2219017-125	ES2219017-126
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.10**	**0.10**	**0.30**	**0.03**	**0.02**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.07**	**0.13**	**0.34**	**0.03**	**0.02**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.25**	**0.97**	**1.60**	**0.22**	**0.13**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.04**	**0.04**	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.49**	**0.54**	**0.09**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.04**	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.02**	**0.05**	**0.19**	**0.05**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.03**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.02**	**0.03**	**0.01**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC100_220524	0902_QC102_220524	0902_QC103_220525	0902_QC105_220526	0902_QC106_220526
				Sampling date / time	24-May-2022 10:07	24-May-2022 15:21	25-May-2022 14:29	26-May-2022 13:20	26-May-2022 13:57
Compound	CAS Number	LOR	Unit		ES2219017-120	ES2219017-122	ES2219017-123	ES2219017-125	ES2219017-126
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.44**	**1.80**	**3.11**	**0.43**	**0.17**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.25**	**1.46**	**2.14**	**0.31**	**0.13**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.37**	**1.63**	**2.73**	**0.40**	**0.15**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**100**	**102**	**110**	**106**	**102**
13C8-PFOA	----	0.02	%		**69.4**	**69.9**	**70.6**	**71.0**	**67.4**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC107_220527	0902_QC108_220527	----	----	----
				Sampling date / time	27-May-2022 07:56	27-May-2022 14:53	----	----	----
Compound	CAS Number	LOR	Unit		ES2219017-127	ES2219017-128	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.09**	**0.26**	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.05**	**0.29**	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.45**	**1.45**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.02**	**0.03**	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.63**	**0.13**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.03**	**0.05**	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.06**	**0.20**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.03**	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.03**	**0.02**	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC107_220527	0902_QC108_220527	----	----	----
				Sampling date / time	27-May-2022 07:56	27-May-2022 14:53	----	----	----
Compound	CAS Number	LOR	Unit		ES2219017-127	ES2219017-128	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.36**	**2.46**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.08**	**1.58**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.29**	**2.14**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**106**	**109**	----	----	----
13C8-PFOA	----	0.02	%		**67.8**	**68.2**	----	----	----

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_QC300_220524	0902_QC301_220525	0902_QC302_220526	0902_QC303_220527	0902_QC304_220530
				Sampling date / time	24-May-2022 19:54	25-May-2022 19:54	26-May-2022 19:56	27-May-2022 14:57	30-May-2022 07:26
					ES2219017-115	ES2219017-116	ES2219017-117	ES2219017-118	ES2219017-119
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	----	----	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	----	----	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	----	----	<1
Total Alkalinity as CaCO3	----	1	mg/L		----	----	----	----	<1
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	----	----	<1
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	----	----	<1
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	----	----	<1
Magnesium	7439-95-4	1	mg/L		----	----	----	----	<1
Sodium	7440-23-5	1	mg/L		----	----	----	----	<1
Potassium	7440-09-7	1	mg/L		----	----	----	----	<1
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	----	----	<0.01
Manganese	7439-96-5	0.001	mg/L		----	----	----	----	<0.001
Iron	7439-89-6	0.05	mg/L		----	----	----	----	<0.05
Bromine	7726-95-6	0.1	mg/L		----	----	----	----	<0.1
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	----	----	<0.01
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	----	----	<0.01
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	----	----	<0.01
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	----	----	<0.01
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	----	----	<0.01
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	----	----	----	<0.01
ø Total Cations	----	0.01	meq/L		----	----	----	----	<0.01
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC300_220524	0902_QC301_220525	0902_QC302_220526	0902_QC303_220527	0902_QC304_220530
				Sampling date / time	24-May-2022 19:54	25-May-2022 19:54	26-May-2022 19:56	27-May-2022 14:57	30-May-2022 07:26
Compound	CAS Number	LOR	Unit		ES2219017-115	ES2219017-116	ES2219017-117	ES2219017-118	ES2219017-119
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_QC300_220524	0902_QC301_220525	0902_QC302_220526	0902_QC303_220527	0902_QC304_220530
				Sampling date / time	24-May-2022 19:54	25-May-2022 19:54	26-May-2022 19:56	27-May-2022 14:57	30-May-2022 07:26
					ES2219017-115	ES2219017-116	ES2219017-117	ES2219017-118	ES2219017-119
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**105**	**102**	**112**	**100**	**108**
13C8-PFOA	----	0.02	%		**108**	**105**	**68.4**	**71.1**	**71.2**

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)				Sample ID	0902_QC305_220531	----	----	----	----
				Sampling date / time	31-May-2022 07:27	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2219017-137	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)				Sample ID	**0902_QC305_220531**	----	----	----	----
				Sampling date / time	31-May-2022 07:27	----	----	----	----
Compound	*CAS Number*	*LOR*	*Unit*		**ES2219017-137**	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**103**	----	----	----	----
13C8-PFOA	----	0.02	%		**77.5**	----	----	----	----

Analytical Results

Sub-Matrix: **SEDIMENT** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SD001_220524	0902_SD002_220527	0902_SD003_220527	0902_SD005_220526	0902_SD007_220526
				Sampling date / time	24-May-2022 11:56	27-May-2022 10:59	27-May-2022 09:44	26-May-2022 12:09	26-May-2022 13:21
					ES2219017-077	ES2219017-078	ES2219017-079	ES2219017-080	ES2219017-081
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**41.0**	**74.1**	**62.2**	**49.4**	**59.4**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		**0.0037**	**0.0124**	**0.0064**	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		**0.0050**	**0.0153**	**0.0073**	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0610**	**0.157**	**0.0818**	**0.0002**	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		**0.0096**	**0.0261**	**0.0149**	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**4.24**	**1.49**	**1.18**	**0.0073**	**0.0018**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		**0.218**	**0.0138**	**0.0092**	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		**0.002**	**0.003**	**0.001**	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		**0.0061**	**0.0054**	**0.0022**	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		**0.0120**	**0.0214**	**0.0103**	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		**0.0098**	**0.0044**	**0.0022**	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		**0.0315**	**0.0115**	**0.0055**	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		**0.0817**	**0.0027**	**0.0013**	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		**0.490**	**0.0067**	**0.0034**	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		**2.94**	**0.0152**	**0.0068**	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		**3.72**	**0.0263**	**0.0120**	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		**0.477**	**0.0084**	**0.0035**	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		**0.207**	**0.0072**	**0.0025**	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		**0.0693**	**0.0349**	**0.0066**	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD001_220524	0902_SD002_220527	0902_SD003_220527	0902_SD005_220526	0902_SD007_220526
				Sampling date / time	24-May-2022 11:56	27-May-2022 10:59	27-May-2022 09:44	26-May-2022 12:09	26-May-2022 13:21
Compound	CAS Number	LOR	Unit		ES2219017-077	ES2219017-078	ES2219017-079	ES2219017-080	ES2219017-081
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		**0.0524**	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		**0.0014**	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		**0.0220**	**0.0011**	**0.0007**	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		**1.03**	**0.0098**	**0.0046**	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		**0.244**	**0.0022**	**0.0013**	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**13.9**	**1.87**	**1.36**	**0.0075**	**0.0018**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**4.30**	**1.65**	**1.26**	**0.0075**	**0.0018**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**5.42**	**1.72**	**1.29**	**0.0075**	**0.0018**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**85.0**	**66.5**	**116**	**102**	**90.0**
13C8-PFOA	----	0.0002	%		**90.5**	**102**	**116**	**108**	**94.5**

Analytical Results

Sub-Matrix: **SEDIMENT** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SD008_220526	0902_SD009_220526	0902_SD011_220527	0902_SD013_220527	0902_SD014_220526
				Sampling date / time	26-May-2022 14:17	26-May-2022 15:22	27-May-2022 12:40	27-May-2022 13:09	26-May-2022 10:33
					ES2219017-082	ES2219017-083	ES2219017-084	ES2219017-085	ES2219017-086
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**54.3**	**57.4**	**25.0**	**49.6**	**39.1**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	**0.0008**	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	**0.0003**	**0.0008**	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0010**	**0.0079**	**0.0059**	**0.0030**	**0.0003**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	**0.0007**	**0.0005**	**0.0007**	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0072**	**0.0541**	**0.0407**	**0.0463**	**0.0015**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		**0.0002**	**0.0010**	**0.0007**	**0.0005**	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	**0.0003**	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	**0.0004**	**0.0011**	**0.0002**	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	**0.0005**	**0.0004**	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	**0.0005**	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	**0.0003**	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	**0.0003**	**0.0003**	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	**0.0003**	**0.0006**	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	**0.0002**	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	**0.0002**	**0.0002**	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD008_220526	0902_SD009_220526	0902_SD011_220527	0902_SD013_220527	0902_SD014_220526
				Sampling date / time	26-May-2022 14:17	26-May-2022 15:22	27-May-2022 12:40	27-May-2022 13:09	26-May-2022 10:33
Compound	CAS Number	LOR	Unit		ES2219017-082	ES2219017-083	ES2219017-084	ES2219017-085	ES2219017-086
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0084**	**0.0665**	**0.0527**	**0.0507**	**0.0018**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0082**	**0.0620**	**0.0466**	**0.0493**	**0.0018**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0082**	**0.0629**	**0.0494**	**0.0495**	**0.0018**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**79.0**	**85.0**	**91.5**	**99.0**	**95.5**
13C8-PFOA	----	0.0002	%		**93.5**	**96.0**	**101**	**112**	**95.0**

Analytical Results

Sub-Matrix: **SEDIMENT** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SD015_220530	0902_SD016_220530	0902_SD018_220531	0902_SD019_220531	0902_SD020_220531
				Sampling date / time	30-May-2022 15:17	30-May-2022 15:52	31-May-2022 09:36	31-May-2022 09:10	31-May-2022 08:37
					ES2219017-087	ES2219017-088	ES2219017-089	ES2219017-090	ES2219017-091
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**54.4**	**29.8**	**33.3**	**63.0**	**47.6**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0005**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0044**	**0.0009**	**0.0004**	**0.0008**	**0.0007**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD015_220530	0902_SD016_220530	0902_SD018_220531	0902_SD019_220531	0902_SD020_220531
				Sampling date / time	30-May-2022 15:17	30-May-2022 15:52	31-May-2022 09:36	31-May-2022 09:10	31-May-2022 08:37
Compound	CAS Number	LOR	Unit		ES2219017-087	ES2219017-088	ES2219017-089	ES2219017-090	ES2219017-091
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0049**	**0.0009**	**0.0004**	**0.0008**	**0.0007**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0049**	**0.0009**	**0.0004**	**0.0008**	**0.0007**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0049**	**0.0009**	**0.0004**	**0.0008**	**0.0007**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**81.5**	**93.0**	**100**	**87.0**	**90.0**
13C8-PFOA	----	0.0002	%		**94.0**	**100**	**99.0**	**89.0**	**101**

Analytical Results

Sub-Matrix: **SEDIMENT** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SD022_220530	0902_SD023_220531	0902_SD024_220531	0902_SD030_220531	0902_SD035_220530
				Sampling date / time	30-May-2022 13:04	31-May-2022 08:06	31-May-2022 11:17	31-May-2022 10:13	30-May-2022 14:19
					ES2219017-092	ES2219017-093	ES2219017-094	ES2219017-095	ES2219017-096
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**25.7**	**27.8**	**31.4**	**22.8**	**34.7**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	**0.0004**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0006**	**0.0003**	**0.0009**	<0.0002	**0.0015**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	**0.0003**	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD022_220530	0902_SD023_220531	0902_SD024_220531	0902_SD030_220531	0902_SD035_220530
				Sampling date / time	30-May-2022 13:04	31-May-2022 08:06	31-May-2022 11:17	31-May-2022 10:13	30-May-2022 14:19
Compound	CAS Number	LOR	Unit		ES2219017-092	ES2219017-093	ES2219017-094	ES2219017-095	ES2219017-096
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0006**	**0.0003**	**0.0012**	<0.0002	**0.0019**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0006**	**0.0003**	**0.0009**	<0.0002	**0.0019**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0006**	**0.0003**	**0.0012**	<0.0002	**0.0019**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**86.5**	**85.5**	**101**	**87.5**	**106**
13C8-PFOA	----	0.0002	%		**94.0**	**106**	**108**	**89.0**	**115**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0902_QC101_220524	0902_QC110_220530	----	----	----
			Sampling date / time	24-May-2022 15:23	30-May-2022 15:17	----	----	----
Compound	CAS Number	LOR	Unit	ES2219017-121	ES2219017-130	--------	--------	--------
				Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**51.2**	**52.1**	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	**0.0076**	<0.0002	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	**0.0090**	<0.0002	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0980**	**0.0005**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	**0.0236**	<0.0002	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**6.59**	**0.0031**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	**0.349**	<0.0002	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	**0.004**	<0.001	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	**0.0105**	<0.0002	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	**0.0263**	<0.0002	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	**0.0220**	<0.0002	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	**0.0634**	<0.0002	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	**0.127**	<0.0002	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	**0.891**	<0.0002	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	**3.50**	**0.0003**	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	**4.41**	<0.0002	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	**0.622**	<0.0002	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	**0.389**	<0.0005	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	**0.0903**	<0.0002	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_QC101_220524	0902_QC110_220530	----	----	----
				Sampling date / time	24-May-2022 15:23	30-May-2022 15:17	----	----	----
Compound	CAS Number	LOR	Unit		ES2219017-121	ES2219017-130	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		**0.0785**	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		**0.0018**	<0.0002	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		**0.0539**	<0.0005	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		**1.83**	<0.0005	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		**0.0688**	<0.0005	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**19.3**	**0.0039**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**6.69**	**0.0036**	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**8.70**	**0.0036**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**95.0**	**68.5**	----	----	----
13C8-PFOA	----	0.0002	%		**102**	**98.5**	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_MW023_220527	0902_SW002_220527	0902_SW003_220530	0902_SW005_220526	0902_SW011_220527
				Sampling date / time	27-May-2022 10:25	27-May-2022 09:14	30-May-2022 11:32	26-May-2022 12:05	27-May-2022 12:41
Compound	CAS Number	LOR	Unit		ES2219017-015	ES2219017-097	ES2219017-098	ES2219017-099	ES2219017-101
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	<1	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	<1	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	66	----	----
Total Alkalinity as CaCO3	----	1	mg/L		----	----	66	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	11	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	36	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	16	----	----
Magnesium	7439-95-4	1	mg/L		----	----	6	----	----
Sodium	7440-23-5	1	mg/L		----	----	26	----	----
Potassium	7440-09-7	1	mg/L		----	----	3	----	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	0.02	----	----
Manganese	7439-96-5	0.001	mg/L		----	----	0.379	----	----
Iron	7439-89-6	0.05	mg/L		----	----	1.01	----	----
Bromine	7726-95-6	0.1	mg/L		----	----	0.1	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	0.25	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	0.05	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	0.39	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	0.44	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	0.76	----	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	----	2.56	----	----
ø Total Cations	----	0.01	meq/L		----	----	2.50	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: **SURFACE WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW023_220527	0902_SW002_220527	0902_SW003_220530	0902_SW005_220526	0902_SW011_220527
				Sampling date / time	27-May-2022 10:25	27-May-2022 09:14	30-May-2022 11:32	26-May-2022 12:05	27-May-2022 12:41
					ES2219017-015	ES2219017-097	ES2219017-098	ES2219017-099	ES2219017-101
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.02**	**4.80**	**5.86**	**0.02**	**0.61**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**5.75**	**5.64**	<0.02	**0.57**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.05**	**40.5**	**54.9**	**0.20**	**5.28**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**2.96**	**3.20**	<0.02	**0.40**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	**66.1**	**74.0**	**0.19**	**12.0**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	**0.02**	**0.07**	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**1.4**	**1.4**	<0.1	**0.1**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**3.28**	<0.02	**0.32**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**9.94**	**12.4**	<0.02	**1.27**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**2.13**	**2.04**	<0.02	**0.18**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**2.98**	**3.49**	**0.01**	**0.37**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.18**	**0.23**	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	**0.03**	**0.09**	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	**0.05**	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	**0.03**	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	**0.04**	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_MW023_220527	0902_SW002_220527	0902_SW003_220530	0902_SW005_220526	0902_SW011_220527
				Sampling date / time	27-May-2022 10:25	27-May-2022 09:14	30-May-2022 11:32	26-May-2022 12:05	27-May-2022 12:41
Compound	CAS Number	LOR	Unit		ES2219017-015	ES2219017-097	ES2219017-098	ES2219017-099	ES2219017-101
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	**0.19**	**0.25**	<0.05	**0.07**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	**0.11**	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.09**	**137**	**167**	**0.42**	**21.2**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.07**	**107**	**129**	**0.39**	**17.3**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.09**	**128**	**158**	**0.42**	**20.2**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**117**	**106**	**110**	**102**	**113**
13C8-PFOA	----	0.02	%		**106**	**77.7**	**104**	**102**	**102**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW013_220527	0902_SW014_220526	0902_SW015_220530	0902_SW016_220530	0902_SW018_220531
				Sampling date / time	27-May-2022 13:11	26-May-2022 10:32	30-May-2022 15:18	30-May-2022 15:50	31-May-2022 09:36
Compound	CAS Number	LOR	Unit		ES2219017-102	ES2219017-103	ES2219017-104	ES2219017-105	ES2219017-106
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	<1	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	<1	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	385	164	----
Total Alkalinity as CaCO3	----	1	mg/L		----	----	385	164	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	84	30	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	440	122	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	64	42	----
Magnesium	7439-95-4	1	mg/L		----	----	58	21	----
Sodium	7440-23-5	1	mg/L		----	----	284	68	----
Potassium	7440-09-7	1	mg/L		----	----	4	16	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	<0.01	<0.01	----
Manganese	7439-96-5	0.001	mg/L		----	----	0.793	1.41	----
Iron	7439-89-6	0.05	mg/L		----	----	<0.05	0.28	----
Bromine	7726-95-6	0.1	mg/L		----	----	1.4	0.5	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	0.18	1.28	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	<0.01	0.04	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	0.11	0.51	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	0.11	0.55	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	0.11	0.20	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	----	21.8	7.34	----
ø Total Cations	----	0.01	meq/L		----	----	20.4	7.19	----
ø Ionic Balance	----	0.01	%		----	----	3.38	1.04	----
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW013_220527	0902_SW014_220526	0902_SW015_220530	0902_SW016_220530	0902_SW018_220531
				Sampling date / time	27-May-2022 13:11	26-May-2022 10:32	30-May-2022 15:18	30-May-2022 15:50	31-May-2022 09:36
Compound	CAS Number	LOR	Unit		ES2219017-102	ES2219017-103	ES2219017-104	ES2219017-105	ES2219017-106
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.08**	**0.22**	<0.02	**0.02**	**0.05**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.04**	**0.22**	<0.02	<0.02	**0.04**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.32**	**2.28**	**0.29**	**0.17**	**0.34**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.08**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.17**	**1.24**	**0.24**	**0.06**	**0.44**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**0.1**	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.18**	<0.02	<0.02	**0.02**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.06**	**0.85**	<0.02	**0.03**	**0.07**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.06**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.01**	**0.11**	<0.01	<0.01	**0.02**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW013_220527	0902_SW014_220526	0902_SW015_220530	0902_SW016_220530	0902_SW018_220531
				Sampling date / time	27-May-2022 13:11	26-May-2022 10:32	30-May-2022 15:18	30-May-2022 15:50	31-May-2022 09:36
Compound	CAS Number	LOR	Unit		ES2219017-102	ES2219017-103	ES2219017-104	ES2219017-105	ES2219017-106
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.78**	**5.24**	**0.53**	**0.28**	**0.98**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.49**	**3.52**	**0.53**	**0.23**	**0.78**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.74**	**4.94**	**0.53**	**0.28**	**0.94**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**106**	**106**	**99.5**	**108**	**106**
13C8-PFOA	----	0.02	%		**99.5**	**99.3**	**99.4**	**98.3**	**108**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW019_220531	0902_SW020_220531	0902_SW022_220530	0902_SW023_220531	0902_SW024_220531
				Sampling date / time	31-May-2022 09:08	31-May-2022 08:36	30-May-2022 13:03	31-May-2022 10:20	31-May-2022 11:16
Compound	CAS Number	LOR	Unit		ES2219017-107	ES2219017-108	ES2219017-109	ES2219017-110	ES2219017-111
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	<1	<1	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	<1	<1	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	49	194	61	----
Total Alkalinity as CaCO3	----	1	mg/L		----	49	194	61	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	35	38	34	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	244	196	225	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	17	41	22	----
Magnesium	7439-95-4	1	mg/L		----	22	28	21	----
Sodium	7440-23-5	1	mg/L		----	116	115	103	----
Potassium	7440-09-7	1	mg/L		----	7	12	6	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	0.18	<0.01	0.08	----
Manganese	7439-96-5	0.001	mg/L		----	0.169	0.653	0.568	----
Iron	7439-89-6	0.05	mg/L		----	0.96	0.45	0.56	----
Bromine	7726-95-6	0.1	mg/L		----	0.5	0.7	0.4	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	0.13	0.41	0.21	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	0.02	0.05	0.03	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	0.67	0.05	1.45	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	0.69	0.10	1.48	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	0.17	0.21	0.21	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	8.59	10.2	8.27	----
ø Total Cations	----	0.01	meq/L		----	7.88	9.66	7.46	----
ø Ionic Balance	----	0.01	%		----	4.29	2.70	5.17	----
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: **SURFACE WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SW019_220531	0902_SW020_220531	0902_SW022_220530	0902_SW023_220531	0902_SW024_220531
				Sampling date / time	31-May-2022 09:08	31-May-2022 08:36	30-May-2022 13:03	31-May-2022 10:20	31-May-2022 11:16
					ES2219017-107	ES2219017-108	ES2219017-109	ES2219017-110	ES2219017-111
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	**0.05**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.04**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.03**	**0.04**	**0.07**	**0.37**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.04**	**0.07**	**0.04**	**0.46**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.03**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.08**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.01**	<0.01	**0.03**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW019_220531	0902_SW020_220531	0902_SW022_220530	0902_SW023_220531	0902_SW024_220531
				Sampling date / time	31-May-2022 09:08	31-May-2022 08:36	30-May-2022 13:03	31-May-2022 10:20	31-May-2022 11:16
Compound	CAS Number	LOR	Unit		ES2219017-107	ES2219017-108	ES2219017-109	ES2219017-110	ES2219017-111
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.07**	**0.12**	**0.11**	**1.06**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.07**	**0.11**	**0.11**	**0.83**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.07**	**0.12**	**0.11**	**1.02**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**110**	**105**	**112**	**111**	**108**
13C8-PFOA	----	0.02	%		**106**	**108**	**109**	**102**	**105**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW030_220531	0902_SW035_220530	0902_SW037_220527	0902_QC109_220530	0902_QC111_220531
				Sampling date / time	31-May-2022 10:14	30-May-2022 14:18	27-May-2022 10:10	30-May-2022 11:35	31-May-2022 09:09
Compound	CAS Number	LOR	Unit		ES2219017-112	ES2219017-113	ES2219017-114	ES2219017-129	ES2219017-131
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	<1	----	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	<1	----	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	77	----	60	----
Total Alkalinity as CaCO3	----	1	mg/L		----	77	----	60	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	8	----	11	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	52	----	39	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	18	----	16	----
Magnesium	7439-95-4	1	mg/L		----	9	----	6	----
Sodium	7440-23-5	1	mg/L		----	32	----	26	----
Potassium	7440-09-7	1	mg/L		----	7	----	3	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	0.11	----	0.02	----
Manganese	7439-96-5	0.001	mg/L		----	0.312	----	0.403	----
Iron	7439-89-6	0.05	mg/L		----	1.47	----	0.99	----
Bromine	7726-95-6	0.1	mg/L		----	0.2	----	<0.1	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	0.10	----	0.29	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	<0.01	----	0.04	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	0.03	----	0.39	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	0.03	----	0.43	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	0.12	----	0.37	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	3.17	----	2.53	----
ø Total Cations	----	0.01	meq/L		----	3.21	----	2.50	----
ø Ionic Balance	----	0.01	%		----	0.60	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									

Analytical Results

Sub-Matrix: **SURFACE WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SW030_220531	0902_SW035_220530	0902_SW037_220527	0902_QC109_220530	0902_QC111_220531
				Sampling date / time	31-May-2022 10:14	30-May-2022 14:18	27-May-2022 10:10	30-May-2022 11:35	31-May-2022 09:09
					ES2219017-112	ES2219017-113	ES2219017-114	ES2219017-129	ES2219017-131
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids - Continued									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.03**	**4.47**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	**0.02**	**5.19**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.05**	**0.27**	**36.7**	**0.03**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**2.47**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.03**	**0.56**	**60.6**	**0.03**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.09**	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**1.3**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.03**	**2.19**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.09**	**9.33**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**2.11**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.02**	**2.69**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	**0.20**	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	**0.08**	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.04**	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	**0.03**	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: **SURFACE WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SW030_220531	0902_SW035_220530	0902_SW037_220527	0902_QC109_220530	0902_QC111_220531
				Sampling date / time	31-May-2022 10:14	30-May-2022 14:18	27-May-2022 10:10	30-May-2022 11:35	31-May-2022 09:09
					ES2219017-112	ES2219017-113	ES2219017-114	ES2219017-129	ES2219017-131
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	**0.20**	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	**0.12**	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.08**	**1.02**	**128**	**0.06**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.08**	**0.83**	**97.3**	**0.06**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.08**	**1.00**	**120**	**0.06**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**105**	**114**	**97.2**	**106**	**98.5**
13C8-PFOA	----	0.02	%		**104**	**102**	**102**	**73.4**	**64.5**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_QC112_220531	0902_SW001_220524	----	----	----
				Sampling date / time	31-May-2022 10:15	24-May-2022 11:52	----	----	----
Compound	CAS Number	LOR	Unit		ES2219017-132	ES2219017-136	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**1.67**	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**1.65**	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**9.28**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.48**	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**23.0**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	**0.13**	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**1.0**	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**1.96**	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**3.78**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**1.67**	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**1.57**	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.68**	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	**0.70**	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	**0.28**	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	**0.06**	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	**0.02**	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_QC112_220531	0902_SW001_220524	----	----	----
				Sampling date / time	31-May-2022 10:15	24-May-2022 11:52	----	----	----
Compound	CAS Number	LOR	Unit		ES2219017-132	ES2219017-136	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	**0.33**	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	**0.89**	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**49.2**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**32.3**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**45.2**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**113**	----	----	----
13C8-PFOA	----	0.02	%		**66.4**	**72.2**	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **RINSATE**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SEDIMENT**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SURFACE WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2219017-AB**	Page	: 1 of 5
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 31-May-2022 18:20
Order number	: 60612562_5.1	Date Analysis Commenced	: 01-Jun-2022
C-O-C number	: 37829	Issue Date	: 24-Jun-2022 12:49
Sampler	: ANDREW SPOOR, MAT JENKINS		
Site	: NSW_0902_PFASOMP		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X: Poor duplicate precision for various analytes on sample ES2219017_077 due to sample heterogenity confirmed by re-extraction and re-analysis.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- Amendment (24/06/2022):This report has been amended following the client request to split report. All analysis results are as per the previous report.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW107I_220524	----	----	----	----
				Sampling date / time	24-May-2022 10:29	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2219017-069	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**32.6**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**44.3**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**255**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**22.7**	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**156**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		**0.08**	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**11.5**	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**18.9**	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**87.7**	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**17.9**	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**32.4**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		**0.09**	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW107I_220524	----	----	----	----
				Sampling date / time	24-May-2022 10:29	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2219017-069	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**679**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**411**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**612**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**93.0**	----	----	----	----
13C8-PFOA	----	0.02	%		**87.6**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2219017-AA**	Page	: 1 of 30
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 31-May-2022
Order number	: 60612562_5.1	Date Analysis Commenced	: 31-May-2022
C-O-C number	: 37829	Issue Date	: 24-Jun-2022
Sampler	: ANDREW SPOOR, MAT JENKINS		
Site	: NSW_0902_PFASOMP		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 132		
No. of samples analysed	: 132		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

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General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4380871)									
ES2218901-001	Anonymous	EA055: Moisture Content	----	0.1	%	20.3	19.3	5.1	0% - 20%
ES2219017-086	0902_SD014_220526	EA055: Moisture Content	----	0.1	%	39.1	38.6	1.0	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4380872)									
ES2219017-095	0902_SD030_220531	EA055: Moisture Content	----	0.1	%	22.8	23.0	0.6	0% - 20%
ES2219642-007	Anonymous	EA055: Moisture Content	----	0.1	%	24.0	24.4	1.8	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4377961)									
ES2219017-077	0902_SD001_220524	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	0.0037	# 0.0053	35.1	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	0.0050	# 0.0074	38.1	0% - 20%
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0610	# 0.0890	37.4	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	0.0096	0.0107	10.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	4.24	# 7.19	51.7	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	0.218	# 0.324	38.9	0% - 20%
ES2219017-087	0902_SD015_220530	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0005	0.0005	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0044	0.0039	10.3	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4379424)									
EP2206667-032	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4379424) - continued									
EP2206667-032	Anonymous	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0002	0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2219355-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.0003	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4377961)									
ES2219017-077	0902_SD001_220524	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	0.0061	# 0.0084	31.3	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0120	# 0.0153	23.9	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	0.0098	# 0.0135	32.1	0% - 20%
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0315	# 0.0442	33.6	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	0.0817	# 0.118	36.7	0% - 20%
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	0.490	# 0.636	26.0	0% - 20%
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	2.94	# 4.61	44.1	0% - 20%
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	3.72	# 5.38	36.4	0% - 20%
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	0.477	# 0.605	23.7	0% - 20%
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	0.207	# 0.273	27.6	0% - 20%
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	0.002	0.003	0.0	No Limit
ES2219017-087	0902_SD015_220530	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4379424)									
EP2206667-032	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	0.0024	0.0024	0.0	0% - 50%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0074	0.0074	0.0	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	0.0037	0.0036	0.0	0% - 50%
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0010	0.0010	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	0.0013	0.0014	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	0.0010	0.0011	11.3	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	0.0004	0.0004	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	0.0002	0.0003	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4379424) - continued									
EP2206667-032	Anonymous	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	0.002	0.002	0.0	No Limit
ES2219355-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4377961)									
ES2219017-077	0902_SD001_220524	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	0.0693	0.0807	15.2	0% - 20%
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	0.0014	0.0018	24.7	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	0.0524	0.0639	19.8	0% - 20%
ES2219017-087	0902_SD015_220530	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4379424)									
EP2206667-032	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2219355-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4377961)									
ES2219017-077	0902_SD001_220524	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	0.0220	# 0.0338	42.3	0% - 20%
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	1.03	# 2.12	69.5	0% - 20%
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	0.244	0.267	8.8	0% - 20%
ES2219017-087	0902_SD015_220530	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4377961) - continued									
ES2219017-087	0902_SD015_220530	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4379424)									
EP2206667-032	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	0.276	0.316	13.6	0% - 20%
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	0.0099	0.0109	9.6	0% - 20%
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	0.0035	0.0044	21.4	No Limit
ES2219355-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED037P: Alkalinity by PC Titrator (QC Lot: 4374042)									
ES2219017-014	0902_MW022_220530	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	472	396	17.7	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	472	396	17.7	0% - 20%
ES2219017-105	0902_SW016_220530	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	164	165	0.8	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	164	165	0.8	0% - 20%
ED037P: Alkalinity by PC Titrator (QC Lot: 4374756)									
ES2218931-004	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	54	54	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	54	54	0.0	0% - 20%
ES2219063-001	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	94	102	8.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	94	102	8.0	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4372160)									

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4372160) - continued									
ES2219017-014	0902_MW022_220530	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	45	45	0.0	0% - 20%
ES2219034-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	25	25	0.0	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4376538)									
ES2219017-119	0902_QC304_220530	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	<1	0.0	No Limit
ED045G: Chloride by Discrete Analyser (QC Lot: 4372159)									
ES2219017-014	0902_MW022_220530	ED045G: Chloride	16887-00-6	1	mg/L	1040	1040	0.1	0% - 20%
ES2219034-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	58	56	2.0	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 4376539)									
ES2219017-119	0902_QC304_220530	ED045G: Chloride	16887-00-6	1	mg/L	<1	<1	0.0	No Limit
ED093F: Dissolved Major Cations (QC Lot: 4378021)									
ES2218698-003	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	24	25	0.0	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	12	12	0.0	0% - 50%
		ED093F: Sodium	7440-23-5	1	mg/L	10	10	0.0	No Limit
		ED093F: Potassium	7440-09-7	1	mg/L	6	6	0.0	No Limit
ES2219087-001	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	12	12	0.0	0% - 50%
		ED093F: Magnesium	7439-95-4	1	mg/L	13	13	0.0	0% - 50%
		ED093F: Sodium	7440-23-5	1	mg/L	79	79	0.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	3	3	0.0	No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 4378020)									
ES2218698-003	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.423	0.437	3.3	0% - 20%
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	2.22	2.29	3.0	0% - 20%
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	<0.1	0.0	No Limit
ES2219087-001	Anonymous	EG020A-F: Manganese	7439-96-5	0.001	mg/L	1.57	1.55	1.6	0% - 20%
		EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-F: Iron	7439-89-6	0.05	mg/L	8.78	8.70	0.9	0% - 20%
		EG020A-F: Bromine	7726-95-6	0.1	mg/L	0.3	0.3	0.0	No Limit
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 4381943)									
ES2219017-014	0902_MW022_220530	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.13	0.13	0.0	0% - 50%
ES2219017-105	0902_SW016_220530	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	1.28	1.25	2.2	0% - 20%
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4372158)									
ES2219017-014	0902_MW022_220530	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2219034-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4381942)									
ES2219017-014	0902_MW022_220530	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.02	0.01	0.0	No Limit
ES2219017-105	0902_SW016_220530	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.55	0.54	2.0	0% - 20%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4381946)									
ES2219017-014	0902_MW022_220530	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.49	0.48	0.0	0% - 20%

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4381946) - continued									
ES2219017-108	0902_SW020_220531	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.17	0.16	0.0	0% - 50%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4381644)									
ES2219017-009	0902_MW015_220527	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	3.27	3.33	1.7	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	3.02	2.90	4.1	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.41	0.44	5.6	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.43	0.43	0.0	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.19	0.19	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4381654)									
ES2219017-020	0902_MW028_220525	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	9.73	8.82	9.7	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.09	0.08	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	2.12	1.88	11.8	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	2.84	2.66	6.4	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.03	0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2219017-029	0902_MW043_220525	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.03	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.15	0.16	0.0	0% - 50%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4381677)									
ES2219017-046	0902_MW065_220524	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.29	0.28	0.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.05	0.05	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4382425)									
ES2219017-099	0902_SW005_220526	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.20	0.23	11.3	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.19	0.22	14.9	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.02	0.03	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2219017-102	0902_SW013_220527	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.32	0.29	9.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.17	0.15	9.5	0% - 50%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.08	0.07	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.04	0.04	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4382425) - continued									
ES2219017-102	0902_SW013_220527	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4381644)									
ES2219017-009	0902_MW015_220527	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.13	0.13	0.0	0% - 50%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.09	0.09	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.43	0.45	6.4	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.06	0.07	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4381654)									
ES2219017-020	0902_MW028_220525	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.14	0.14	0.0	0% - 50%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.47	0.42	10.3	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	2.87	2.66	7.6	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.54	0.47	12.3	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	0.4	0.4	0.0	No Limit
ES2219017-029	0902_MW043_220525	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4381677)									
ES2219017-046	0902_MW065_220524	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4381677) - continued									
ES2219017-046	0902_MW065_220524	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4382425)									
ES2219017-099	0902_SW005_220526	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2219017-102	0902_SW013_220527	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.01	0.02	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	0.1	0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4381644)									
ES2219017-009	0902_MW015_220527	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4381644) - continued									
ES2219017-009	0902_MW015_220527	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4381654)									
ES2219017-020	0902_MW028_220525	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2219017-029	0902_MW043_220525	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4381677)									
ES2219017-046	0902_MW065_220524	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4381677) - continued									
ES2219017-046	0902_MW065_220524	EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4382425)									
ES2219017-099	0902_SW005_220526	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2219017-102	0902_SW013_220527	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4381644)									
ES2219017-009	0902_MW015_220527	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4381644) - continued									
ES2219017-009	0902_MW015_220527	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4381654)									
ES2219017-020	0902_MW028_220525	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2219017-029	0902_MW043_220525	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4381677)									
ES2219017-046	0902_MW065_220524	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4382425)									
ES2219017-099	0902_SW005_220526	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2219017-102	0902_SW013_220527	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4382425) - continued									
ES2219017-102	0902_SW013_220527	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4381644)									
ES2219017-009	0902_MW015_220527	EP231X: Sum of PFAS	----	0.01	µg/L	8.03	8.03	0.0	0% - 20%
EP231P: PFAS Sums (QC Lot: 4381654)									
ES2219017-020	0902_MW028_220525	EP231X: Sum of PFAS	----	0.01	µg/L	19.2	17.6	9.1	0% - 20%
ES2219017-029	0902_MW043_220525	EP231X: Sum of PFAS	----	0.01	µg/L	0.17	0.19	11.1	0% - 50%
EP231P: PFAS Sums (QC Lot: 4381677)									
ES2219017-046	0902_MW065_220524	EP231X: Sum of PFAS	----	0.01	µg/L	0.42	0.41	2.4	0% - 20%
EP231P: PFAS Sums (QC Lot: 4382425)									
ES2219017-099	0902_SW005_220526	EP231X: Sum of PFAS	----	0.01	µg/L	0.42	0.51	19.4	0% - 20%
ES2219017-102	0902_SW013_220527	EP231X: Sum of PFAS	----	0.01	µg/L	0.78	0.73	6.6	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4377961)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.8	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.2	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.8	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	120	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4379424)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.8	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.0	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.6	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.0	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4377961)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	103	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.8	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	118	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	117	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	122	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	110	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4379424)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	97.5	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	111	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	109	64.0	136

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4379424) - continued								
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	126	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	108	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4377961)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	111	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	93.4	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	124	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	106	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4379424)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	118	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	101	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	99.4	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	102	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	76.0	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4377961)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	111	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	104	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	110	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	125	69.2	143
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4379424)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	116	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	118	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	105	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	110	69.2	143

Sub-Matrix: **WATER**

	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
		Spike	Spike Recovery (%)	Acceptable Limits (%)

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
ED037P: Alkalinity by PC Titrator (QCLot: 4374042)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	82.4	81.0	111
				----	50 mg/L	106	80.0	120
ED037P: Alkalinity by PC Titrator (QCLot: 4374756)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	90.9	81.0	111
				----	50 mg/L	98.4	80.0	120
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4372160)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	102	82.0	122
				<1	500 mg/L	99.7	82.0	122
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4376538)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	101	82.0	122
				<1	500 mg/L	102	82.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 4372159)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	105	80.9	127
				<1	1000 mg/L	99.3	80.9	127
ED045G: Chloride by Discrete Analyser (QCLot: 4376539)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	108	80.9	127
				<1	1000 mg/L	103	80.9	127
ED093F: Dissolved Major Cations (QCLot: 4378021)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	92.8	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	97.9	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	96.7	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	92.2	85.0	113
EG020F: Dissolved Metals by ICP-MS (QCLot: 4378020)								
EG020A-F: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	92.8	80.0	116
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	82.1	82.0	110
EG020A-F: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	83.9	82.0	112
EG020A-F: Bromine	7726-95-6	0.1	mg/L	<0.1	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4381943)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	99.2	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4372158)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	103	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4381942)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	102	91.0	113
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4381946)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	91.8	71.3	126
				<0.01	0.442 mg/L	114	71.3	126
				<0.01	1 mg/L	96.7	71.3	126

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4381644)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	119	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	113	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	111	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	102	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	113	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4381654)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	111	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	107	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	115	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	118	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	103	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4381677)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	108	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	115	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	103	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	114	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	115	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4382192)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	94.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	118	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	111	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	117	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	108	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	114	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4382425)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	125	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	120	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	125	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	128	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	127	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	124	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4382427)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	115	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	123	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	123	68.0	131

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4382427) - continued								
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	124	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	124	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	126	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4381644)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	100	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	111	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	118	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	109	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	119	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	120	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	109	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	124	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4381654)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	92.2	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	83.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	117	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	112	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	88.0	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	92.4	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	119	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4381677)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	96.4	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	82.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	111	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	118	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	119	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	97.2	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	116	65.0	144

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4381677) - continued								
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	117	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4382192)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	118	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	115	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	124	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	111	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	112	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	99.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	118	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	109	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4382425)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	98.2	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	114	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	115	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	118	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	114	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	121	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	113	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	115	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	98.1	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	112	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4382427)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	119	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	119	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	115	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	126	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	122	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	130	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	128	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	124	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	81.8	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	101	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	109	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4381644)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4381644) - continued								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	114	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	111	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	107	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	108	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	107	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	95.0	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	112	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4381654)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	110	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	99.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	87.8	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	102	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	102	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	105	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	108	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4381677)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	117	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	99.5	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	87.6	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	104	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	94.6	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	114	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	114	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4382192)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	114	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	106	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	112	62.6	147

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4382192) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	122	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	92.5	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	111	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	105	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4382425)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	118	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	95.8	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	80.3	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	126	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	98.9	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	121	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	121	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4382427)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	127	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	81.2	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	84.9	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	104	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	66.0	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	109	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	114	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4381644)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	102	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	112	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	117	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	109	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4381654)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	109	63.0	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4381654) - continued								
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	118	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	84.2	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	82.8	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4381677)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	122	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	110	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	122	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	110	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4382192)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	113	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	117	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	125	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	114	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4382425)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	117	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	131	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	129	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	117	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4382427)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	120	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	128	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	127	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	125	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
				Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4377961)							
ES2219017-077	0902_SD001_220524	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	109	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	122	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	# Not Determined	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	# Not Determined	70.0	132

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4377961) - continued							
ES2219017-077	0902_SD001_220524	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	# Not Determined	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	# Not Determined	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4379424)							
EP2206667-032	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	96.4	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	101	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	100	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	90.8	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	98.0	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	106	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4377961)							
ES2219017-077	0902_SD001_220524	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	80.6	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	115	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	# Not Determined	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	# Not Determined	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	# Not Determined	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	# Not Determined	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	# Not Determined	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	# Not Determined	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	# Not Determined	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	# Not Determined	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	# Not Determined	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4379424)							
EP2206667-032	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	99.1	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	108	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	# Not Determined	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	75.2	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	103	69.0	133

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4379424) - continued							
EP2206667-032	Anonymous	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	99.6	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	116	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	119	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	120	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	120	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	108	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4377961)							
ES2219017-077	0902_SD001_220524	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	# Not Determined	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	88.0	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	75.3	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	95.0	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	# Not Determined	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	67.2	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	64.8	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4379424)							
EP2206667-032	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	110	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	107	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	112	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	104	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	103	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	107	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	79.6	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4377961)							
ES2219017-077	0902_SD001_220524	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	76.8	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	# Not Determined	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	# Not Determined	65.0	137

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4377961) - continued							
ES2219017-077	0902_SD001_220524	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	# Not Determined	69.2	143
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4379424)							
EP2206667-032	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	114	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	# Not Determined	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	# Not Determined	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	127	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4372160)							
ES2219034-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	10 mg/L	110	70.0	130
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4376538)							
ES2219017-119	0902_QC304_220530	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	10 mg/L	106	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4372159)							
ES2219034-001	Anonymous	ED045G: Chloride	16887-00-6	50 mg/L	130	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4376539)							
ES2219017-119	0902_QC304_220530	ED045G: Chloride	16887-00-6	50 mg/L	105	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 4378020)							
ES2219017-014	0902_MW022_220530	EG020A-F: Manganese	7439-96-5	1 mg/L	87.0	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4381943)							
ES2219017-014	0902_MW022_220530	EK055G: Ammonia as N	7664-41-7	1 mg/L	91.3	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4372158)							
ES2219034-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	107	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4381942)							
ES2219017-014	0902_MW022_220530	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	93.6	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4381946)							
ES2219017-056	0902_MW075_220530	EK067G: Total Phosphorus as P	----	1 mg/L	92.9	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4381644)							
ES2219017-009	0902_MW015_220527	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	103	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	89.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	# Not Determined	68.0	131

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4381644) - continued							
ES2219017-009	0902_MW015_220527	EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	108	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	# Not Determined	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	98.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4381654)							
ES2219017-020	0902_MW028_220525	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	# Not Determined	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	# Not Determined	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	# Not Determined	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	117	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	121	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	117	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4381677)							
ES2219017-046	0902_MW065_220524	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	103	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	120	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	103	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	118	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	112	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	117	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4382425)							
ES2219017-099	0902_SW005_220526	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	129	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	112	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	117	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	133	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	98.8	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	130	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4381644)							
ES2219017-009	0902_MW015_220527	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	81.4	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	90.8	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	99.4	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	96.4	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	98.4	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	93.6	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	100	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	82.0	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	90.6	72.0	134

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4381644) - continued							
ES2219017-009	0902_MW015_220527	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	87.0	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	108	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4381654)							
ES2219017-020	0902_MW028_220525	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	90.5	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	79.8	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	# Not Determined	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	123	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	123	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	111	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	104	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	98.8	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	100	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	101	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	119	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4381677)							
ES2219017-046	0902_MW065_220524	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	94.6	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	72.8	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	101	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	114	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	119	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	117	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	105	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	95.4	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	103	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	119	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	120	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4382425)							
ES2219017-099	0902_SW005_220526	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	96.4	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	129	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	121	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	116	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	120	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	120	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	118	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	109	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	121	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	103	65.0	144

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4382425) - continued							
ES2219017-099	0902_SW005_220526	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	122	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4381644)							
ES2219017-009	0902_MW015_220527	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	93.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	86.3	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	80.2	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	79.1	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	89.6	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	95.0	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	89.4	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4381654)							
ES2219017-020	0902_MW028_220525	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	109	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	114	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	97.5	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	100	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	105	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	106	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	105	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4381677)							
ES2219017-046	0902_MW065_220524	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	112	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	110	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	91.0	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	99.0	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	100	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	101	65.0	136

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4381677) - continued							
ES2219017-046	0902_MW065_220524	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	102	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4382425)							
ES2219017-099	0902_SW005_220526	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	122	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	113	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	95.6	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	116	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	102	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	124	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	112	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4381644)							
ES2219017-009	0902_MW015_220527	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	117	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	107	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	93.4	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	104	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4381654)							
ES2219017-020	0902_MW028_220525	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	115	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	119	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	82.2	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	92.8	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4381677)							
ES2219017-046	0902_MW065_220524	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	114	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	105	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	108	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	95.2	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4382425)							
ES2219017-099	0902_SW005_220526	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	109	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	122	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	133	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	136	71.4	144

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2219017-AB**	Page	: 1 of 4
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 31-May-2022
Order number	: 60612562_5.1	Date Analysis Commenced	: 01-Jun-2022
C-O-C number	: 37829	Issue Date	: 24-Jun-2022
Sampler	: ANDREW SPOOR, MAT JENKINS		
Site	: NSW_0902_PFASOMP		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

- **No Laboratory Duplicate (DUP) Results are required to be reported.**

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4382192)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	94.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	118	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	111	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	117	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	108	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	114	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4382192)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	118	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	115	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	124	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	111	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	112	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	99.8	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	118	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	109	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4382192)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	114	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	106	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	112	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	122	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	92.5	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	111	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	105	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4382192)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	113	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	117	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	125	67.0	138

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4382192) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	114	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2219017**	Page	: 1 of 25
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 31-May-2022
Site	: NSW_0902_PFASOMP	Issue Date	: 24-Jun-2022
Sampler	: ANDREW SPOOR, MAT JENKINS	No. of samples received	: 137
Order number	: 60612562_5.1	No. of samples analysed	: 133

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Duplicate outliers exist - please see following pages for full details.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--077	0902_SD001_220524	**Perfluorobutane sulfonic acid (PFBS)**	375-73-5	35.1 %	0% - 20%	**RPD exceeds LOR based limits**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--077	0902_SD001_220524	**Perfluoropentane sulfonic acid (PFPeS)**	2706-91-4	38.1 %	0% - 20%	**RPD exceeds LOR based limits**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--077	0902_SD001_220524	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	37.4 %	0% - 20%	**RPD exceeds LOR based limits**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--077	0902_SD001_220524	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	51.7 %	0% - 20%	**RPD exceeds LOR based limits**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--077	0902_SD001_220524	**Perfluorodecane sulfonic acid (PFDS)**	335-77-3	38.9 %	0% - 20%	**RPD exceeds LOR based limits**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluoropentanoic acid (PFPeA)**	2706-90-3	31.3 %	0% - 20%	**RPD exceeds LOR based limits**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorohexanoic acid (PFHxA)**	307-24-4	23.9 %	0% - 20%	**RPD exceeds LOR based limits**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluoroheptanoic acid (PFHpA)**	375-85-9	32.1 %	0% - 20%	**RPD exceeds LOR based limits**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorooctanoic acid (PFOA)**	335-67-1	33.6 %	0% - 20%	**RPD exceeds LOR based limits**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorononanoic acid (PFNA)**	375-95-1	36.7 %	0% - 20%	**RPD exceeds LOR based limits**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorodecanoic acid (PFDA)**	335-76-2	26.0 %	0% - 20%	**RPD exceeds LOR based limits**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluoroundecanoic acid (PFUnDA)**	2058-94-8	44.1 %	0% - 20%	**RPD exceeds LOR based limits**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorododecanoic acid (PFDoDA)**	307-55-1	36.4 %	0% - 20%	**RPD exceeds LOR based limits**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorotridecanoic acid (PFTrDA)**	72629-94-8	23.7 %	0% - 20%	**RPD exceeds LOR based limits**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorotetradecanoic acid (PFTeDA)**	376-06-7	27.6 %	0% - 20%	**RPD exceeds LOR based limits**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	ES2219017--077	0902_SD001_220524	**6:2 Fluorotelomer sulfonic acid (6:2 FTS)**	27619-97-2	42.3 %	0% - 20%	**RPD exceeds LOR based limits**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	ES2219017--077	0902_SD001_220524	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	39108-34-4	69.5 %	0% - 20%	**RPD exceeds LOR based limits**
Matrix Spike (MS) Recoveries							

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries - Continued							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--077	0902_SD001_220524	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--077	0902_SD001_220524	**Perfluoroheptane sulfonic acid (PFHpS)**	375-92-8	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--077	0902_SD001_220524	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--077	0902_SD001_220524	**Perfluorodecane sulfonic acid (PFDS)**	335-77-3	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorohexanoic acid (PFHxA)**	307-24-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	EP2206667--032	Anonymous	**Perfluorohexanoic acid (PFHxA)**	307-24-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluoroheptanoic acid (PFHpA)**	375-85-9	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorooctanoic acid (PFOA)**	335-67-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorononanoic acid (PFNA)**	375-95-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorodecanoic acid (PFDA)**	335-76-2	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluoroundecanoic acid (PFUnDA)**	2058-94-8	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorododecanoic acid (PFDoDA)**	307-55-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorotridecanoic acid (PFTrDA)**	72629-94-8	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--077	0902_SD001_220524	**Perfluorotetradecanoic acid (PFTeDA)**	376-06-7	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries - Continued							
EP231C: Perfluoroalkyl Sulfonamides	ES2219017--077	0902_SD001_220524	**Perfluorooctane sulfonamide (FOSA)**	754-91-6	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231C: Perfluoroalkyl Sulfonamides	ES2219017--077	0902_SD001_220524	**N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)**	1691-99-2	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	ES2219017--077	0902_SD001_220524	**6:2 Fluorotelomer sulfonic acid (6:2 FTS)**	27619-97-2	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EP2206667--032	Anonymous	**6:2 Fluorotelomer sulfonic acid (6:2 FTS)**	27619-97-2	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	ES2219017--077	0902_SD001_220524	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	39108-34-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	EP2206667--032	Anonymous	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	39108-34-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231D: (n:2) Fluorotelomer Sulfonic Acids	ES2219017--077	0902_SD001_220524	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	120226-60-0	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--020	0902_MW028_220525	**Perfluorobutane sulfonic acid (PFBS)**	375-73-5	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--020	0902_MW028_220525	**Perfluoropentane sulfonic acid (PFPeS)**	2706-91-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--009	0902_MW015_220527	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--020	0902_MW028_220525	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2219017--009	0902_MW015_220527	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231B: Perfluoroalkyl Carboxylic Acids	ES2219017--020	0902_MW028_220525	**Perfluorohexanoic acid (PFHxA)**	307-24-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Method	Count QC	Count Regular	Rate (%) Actual	Rate (%) Expected	Quality Control Specification
Laboratory Duplicates (DUP)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	6	115	5.22	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	4	115	3.48	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation: Date extracted	Extraction / Preparation: Due for extraction	Extraction / Preparation: Evaluation	Analysis: Date analysed	Analysis: Due for analysis	Analysis: Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055) 0902_SD001_220524, 0902_QC101_220524	**24-May-2022**	**----**	----	----	**05-Jun-2022**	07-Jun-2022	✓
HDPE Soil Jar (EA055) 0902_SD005_220526, 0902_SD007_220526, 0902_SD008_220526, 0902_SD009_220526, 0902_SD014_220526	**26-May-2022**	**----**	----	----	**05-Jun-2022**	09-Jun-2022	✓
HDPE Soil Jar (EA055) 0902_SD002_220527, 0902_SD003_220527, 0902_SD011_220527, 0902_SD013_220527	**27-May-2022**	**----**	----	----	**05-Jun-2022**	10-Jun-2022	✓
HDPE Soil Jar (EA055) 0902_SD015_220530, 0902_SD016_220530, 0902_SD022_220530, 0902_SD035_220530, 0902_QC110_220530	**30-May-2022**	**----**	----	----	**05-Jun-2022**	13-Jun-2022	✓
HDPE Soil Jar (EA055) 0902_SD018_220531, 0902_SD019_220531, 0902_SD020_220531, 0902_SD023_220531, 0902_SD024_220531, 0902_SD030_220531	**31-May-2022**	**----**	----	----	**05-Jun-2022**	14-Jun-2022	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD001_220524	**24-May-2022**	**03-Jun-2022**	20-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_QC101_220524	**24-May-2022**	**03-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD005_220526, 0902_SD007_220526, 0902_SD008_220526, 0902_SD009_220526, 0902_SD014_220526	**26-May-2022**	**03-Jun-2022**	22-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD002_220527, 0902_SD003_220527, 0902_SD011_220527, 0902_SD013_220527	**27-May-2022**	**03-Jun-2022**	23-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD015_220530, 0902_SD016_220530, 0902_SD022_220530	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD035_220530, 0902_QC110_220530	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD018_220531, 0902_SD019_220531, 0902_SD020_220531, 0902_SD023_220531, 0902_SD024_220531, 0902_SD030_220531	**31-May-2022**	**03-Jun-2022**	27-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X) 0902_SD001_220524	**24-May-2022**	**03-Jun-2022**	20-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_QC101_220524	**24-May-2022**	**03-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD005_220526, 0902_SD007_220526, 0902_SD008_220526, 0902_SD009_220526, 0902_SD014_220526	**26-May-2022**	**03-Jun-2022**	22-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD002_220527, 0902_SD003_220527, 0902_SD011_220527, 0902_SD013_220527	**27-May-2022**	**03-Jun-2022**	23-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD015_220530, 0902_SD016_220530, 0902_SD022_220530	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD035_220530, 0902_QC110_220530	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD018_220531, 0902_SD019_220531, 0902_SD020_220531, 0902_SD023_220531, 0902_SD024_220531, 0902_SD030_220531	**31-May-2022**	**03-Jun-2022**	27-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0902_SD001_220524	**24-May-2022**	**03-Jun-2022**	20-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_QC101_220524	**24-May-2022**	**03-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD005_220526, 0902_SD007_220526, 0902_SD008_220526, 0902_SD009_220526, 0902_SD014_220526	**26-May-2022**	**03-Jun-2022**	22-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD002_220527, 0902_SD003_220527, 0902_SD011_220527, 0902_SD013_220527	**27-May-2022**	**03-Jun-2022**	23-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD015_220530, 0902_SD016_220530, 0902_SD022_220530	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD035_220530, 0902_QC110_220530	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD018_220531, 0902_SD019_220531, 0902_SD020_220531, 0902_SD023_220531, 0902_SD024_220531, 0902_SD030_220531	**31-May-2022**	**03-Jun-2022**	27-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD001_220524	**24-May-2022**	**03-Jun-2022**	20-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_QC101_220524	**24-May-2022**	**03-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD005_220526, 0902_SD007_220526, 0902_SD008_220526, 0902_SD009_220526, 0902_SD014_220526	**26-May-2022**	**03-Jun-2022**	22-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD002_220527, 0902_SD003_220527, 0902_SD011_220527, 0902_SD013_220527	**27-May-2022**	**03-Jun-2022**	23-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD015_220530, 0902_SD016_220530, 0902_SD022_220530	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD035_220530, 0902_QC110_220530	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X) 0902_SD018_220531, 0902_SD019_220531, 0902_SD020_220531, 0902_SD023_220531, 0902_SD024_220531, 0902_SD030_220531	**31-May-2022**	**03-Jun-2022**	27-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X)								
0902_SD001_220524		**24-May-2022**	**03-Jun-2022**	20-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X)								
0902_QC101_220524		**24-May-2022**	**03-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X)								
0902_SD005_220526,	0902_SD007_220526,	**26-May-2022**	**03-Jun-2022**	22-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
0902_SD008_220526,	0902_SD009_220526,							
0902_SD014_220526								
HDPE Soil Jar (EP231X)								
0902_SD002_220527,	0902_SD003_220527,	**27-May-2022**	**03-Jun-2022**	23-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
0902_SD011_220527,	0902_SD013_220527							
HDPE Soil Jar (EP231X)								
0902_SD015_220530,	0902_SD016_220530,	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
0902_SD022_220530								
HDPE Soil Jar (EP231X)								
0902_SD035_220530,	0902_QC110_220530	**30-May-2022**	**03-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	13-Jul-2022	✓
HDPE Soil Jar (EP231X)								
0902_SD018_220531,	0902_SD019_220531,	**31-May-2022**	**03-Jun-2022**	27-Nov-2022	✓	**03-Jun-2022**	13-Jul-2022	✓
0902_SD020_220531,	0902_SD023_220531,							
0902_SD024_220531,	0902_SD030_220531							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED037P: Alkalinity by PC Titrator								
Clear Plastic Bottle - Natural (ED037-P)								
0902_MW022_220530,	0902_MW075_220530,	**30-May-2022**	**----**	----	----	**01-Jun-2022**	13-Jun-2022	✓
0902_MW081_220530,	0902_MW082_220530,							
0902_MW091_220530,	0902_MW097_220530,							
0902_MW098_220530,	0902_SW003_220530,							
0902_SW015_220530,	0902_SW016_220530,							
0902_SW022_220530,	0902_SW035_220530,							
0902_QC304_220530,	0902_QC109_220530							
Clear Plastic Bottle - Natural (ED037-P)								
0902_SW020_220531,	0902_SW023_220531	**31-May-2022**	**----**	----	----	**01-Jun-2022**	14-Jun-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Clear Plastic Bottle - Natural (ED041G)								
0902_QC304_220530,	0902_QC109_220530	**30-May-2022**	**----**	----	----	**02-Jun-2022**	27-Jun-2022	✓
Clear Plastic Bottle - Natural (ED041G)								
0902_MW022_220530,	0902_MW075_220530,	**30-May-2022**	**----**	----	----	**31-May-2022**	27-Jun-2022	✓
0902_MW081_220530,	0902_MW082_220530,							
0902_MW091_220530,	0902_MW097_220530,							
0902_MW098_220530,	0902_SW003_220530,							
0902_SW015_220530,	0902_SW016_220530,							
0902_SW022_220530,	0902_SW035_220530							
Clear Plastic Bottle - Natural (ED041G)								
0902_SW020_220531,	0902_SW023_220531	**31-May-2022**	**----**	----	----	**31-May-2022**	28-Jun-2022	✓
ED045G: Chloride by Discrete Analyser								
Clear Plastic Bottle - Natural (ED045G)								
0902_QC304_220530,	0902_QC109_220530	**30-May-2022**	**----**	----	----	**02-Jun-2022**	27-Jun-2022	✓
Clear Plastic Bottle - Natural (ED045G)								
0902_MW022_220530,	0902_MW075_220530,	**30-May-2022**	**----**	----	----	**31-May-2022**	27-Jun-2022	✓
0902_MW081_220530,	0902_MW082_220530,							
0902_MW091_220530,	0902_MW097_220530,							
0902_MW098_220530,	0902_SW003_220530,							
0902_SW015_220530,	0902_SW016_220530,							
0902_SW022_220530,	0902_SW035_220530							
Clear Plastic Bottle - Natural (ED045G)								
0902_SW020_220531,	0902_SW023_220531	**31-May-2022**	**----**	----	----	**31-May-2022**	28-Jun-2022	✓
ED093F: Dissolved Major Cations								
Clear Plastic Bottle - Nitric Acid; Filtered (ED093F)								
0902_MW022_220530,	0902_MW075_220530,	**30-May-2022**	**----**	----	----	**03-Jun-2022**	27-Jun-2022	✓
0902_MW081_220530,	0902_MW082_220530,							
0902_MW091_220530,	0902_MW097_220530,							
0902_MW098_220530,	0902_SW003_220530,							
0902_SW015_220530,	0902_SW016_220530,							
0902_SW022_220530,	0902_SW035_220530,							
0902_QC304_220530,	0902_QC109_220530							
Clear Plastic Bottle - Nitric Acid; Filtered (ED093F)								
0902_SW020_220531,	0902_SW023_220531	**31-May-2022**	**----**	----	----	**03-Jun-2022**	28-Jun-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
0902_MW022_220530, 0902_MW075_220530, 0902_MW081_220530, 0902_MW082_220530, 0902_MW091_220530, 0902_MW097_220530, 0902_MW098_220530, 0902_SW003_220530, 0902_SW015_220530, 0902_SW016_220530, 0902_SW022_220530, 0902_SW035_220530, 0902_QC304_220530, 0902_QC109_220530	**30-May-2022**	**----**	----	----	**03-Jun-2022**	26-Nov-2022	✓
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
0902_SW020_220531, 0902_SW023_220531	**31-May-2022**	**----**	----	----	**03-Jun-2022**	27-Nov-2022	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_MW022_220530, 0902_MW075_220530, 0902_MW081_220530, 0902_MW082_220530, 0902_MW091_220530, 0902_MW097_220530, 0902_MW098_220530, 0902_SW003_220530, 0902_SW015_220530, 0902_SW016_220530, 0902_SW022_220530, 0902_SW035_220530, 0902_QC304_220530, 0902_QC109_220530	**30-May-2022**	**----**	----	----	**06-Jun-2022**	27-Jun-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_SW020_220531, 0902_SW023_220531	**31-May-2022**	**----**	----	----	**06-Jun-2022**	28-Jun-2022	✓
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G)							
0902_MW022_220530, 0902_MW075_220530, 0902_MW081_220530, 0902_MW082_220530, 0902_MW091_220530, 0902_MW097_220530, 0902_MW098_220530, 0902_SW003_220530, 0902_SW015_220530, 0902_SW016_220530, 0902_SW022_220530, 0902_SW035_220530, 0902_QC304_220530, 0902_QC109_220530	**30-May-2022**	**----**	----	----	**31-May-2022**	01-Jun-2022	✓
Clear Plastic Bottle - Natural (EK057G)							
0902_SW020_220531, 0902_SW023_220531	**31-May-2022**	**----**	----	----	**31-May-2022**	02-Jun-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK059G)								
0902_MW022_220530,	0902_MW075_220530,	**30-May-2022**	**----**	----	----	**06-Jun-2022**	27-Jun-2022	✓
0902_MW081_220530,	0902_MW082_220530,							
0902_MW091_220530,	0902_MW097_220530,							
0902_MW098_220530,	0902_SW003_220530,							
0902_SW015_220530,	0902_SW016_220530,							
0902_SW022_220530,	0902_SW035_220530,							
0902_QC304_220530,	0902_QC109_220530							
Clear Plastic Bottle - Sulfuric Acid (EK059G)								
0902_SW020_220531,	0902_SW023_220531	**31-May-2022**	**----**	----	----	**06-Jun-2022**	28-Jun-2022	✓
EK067G: Total Phosphorus as P by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK067G)								
0902_MW022_220530,	0902_MW075_220530,	**30-May-2022**	**06-Jun-2022**	27-Jun-2022	✓	**06-Jun-2022**	27-Jun-2022	✓
0902_MW081_220530,	0902_MW082_220530,							
0902_MW091_220530,	0902_MW097_220530,							
0902_MW098_220530,	0902_SW003_220530,							
0902_SW015_220530,	0902_SW016_220530,							
0902_SW022_220530,	0902_SW035_220530,							
0902_QC304_220530,	0902_QC109_220530							
Clear Plastic Bottle - Sulfuric Acid (EK067G)								
0902_SW020_220531,	0902_SW023_220531	**31-May-2022**	**06-Jun-2022**	28-Jun-2022	✓	**06-Jun-2022**	28-Jun-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0902_MW025_220524, 0902_MW026_220524, 0902_MW032_220524, 0902_MW033_220524, 0902_MW034_220524, 0902_MW046_220524, 0902_MW054_220524	**24-May-2022**	**06-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW064_220524, 0902_MW065_220524, 0902_MW066_220524, 0902_MW072_220524, 0902_MW073_220524, 0902_MW074_220524, 0902_MW107D_220524, 0902_MW107I_220524, 0902_QC100_220524, 0902_QC102_220524, 0902_SW001_220524	**24-May-2022**	**07-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC300_220524	**24-May-2022**	**07-Jun-2022**	20-Nov-2022	✓	**08-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW007_220525, 0902_MW008_220525, 0902_MW024_220525, 0902_MW027_220525, 0902_MW028_220525, 0902_MW040_220525, 0902_MW041_220525, 0902_MW042_220525, 0902_MW043_220525, 0902_MW047_220525, 0902_MW048_220525, 0902_MW050_220525, 0902_MW051_220525, 0902_MW052_220525, 0902_MW056_220525	**25-May-2022**	**06-Jun-2022**	21-Nov-2022	✓	**07-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW060_220525, 0902_MW061_220525, 0902_QC103_220525	**25-May-2022**	**07-Jun-2022**	21-Nov-2022	✓	**07-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC301_220525	**25-May-2022**	**07-Jun-2022**	21-Nov-2022	✓	**08-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW002_220526, 0902_MW004_220526, 0902_MW005_220526, 0902_MW016_220526, 0902_MW030_220526, 0902_MW053_220526	**26-May-2022**	**06-Jun-2022**	22-Nov-2022	✓	**07-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW067_220526, 0902_MW068_220526, 0902_MW070_220526, 0902_MW071_220526, 0902_MW108_220526, 0902_MW111_220526, 0902_MW112_220526, 0902_MW113_220526, 0902_MW114_220526, 0902_QC302_220526, 0902_QC105_220526, 0902_QC106_220526	**26-May-2022**	**07-Jun-2022**	22-Nov-2022	✓	**07-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW005_220526, 0902_SW007_220526, 0902_SW014_220526	**26-May-2022**	**07-Jun-2022**	22-Nov-2022	✓	**08-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued							
0902_MW012_220527, 0902_MW013_220527, 0902_MW014_220527, 0902_MW015_220527, 0902_MW017_220527, 0902_MW020_220527, 0902_MW021_220527, 0902_MW023_220527, 0902_MW036_220527	**27-May-2022**	**06-Jun-2022**	23-Nov-2022	✓	**07-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW062_220527, 0902_MW063_220527, 0902_MW069_220527, 0902_MW109_220527, 0902_MW110_220527, 0902_SW002_220527, 0902_QC303_220527, 0902_QC107_220527, 0902_QC108_220527	**27-May-2022**	**07-Jun-2022**	23-Nov-2022	✓	**07-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW011_220527, 0902_SW013_220527, 0902_SW037_220527	**27-May-2022**	**07-Jun-2022**	23-Nov-2022	✓	**08-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW022_220530	**30-May-2022**	**06-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW075_220530, 0902_MW081_220530, 0902_MW082_220530, 0902_MW091_220530, 0902_MW097_220530, 0902_MW098_220530, 0902_QC304_220530, 0902_QC109_220530	**30-May-2022**	**07-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW003_220530, 0902_SW015_220530, 0902_SW016_220530, 0902_SW022_220530, 0902_SW035_220530	**30-May-2022**	**07-Jun-2022**	26-Nov-2022	✓	**08-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW057_220531, 0902_MW059_220531, 0902_MW076_220531, 0902_MW077_220531, 0902_MW078_220531, 0902_MW079_220531, 0902_MW092_220531, 0902_MW106_220531, 0902_QC111_220531, 0902_QC112_220531, 0902_QC305_220531	**31-May-2022**	**07-Jun-2022**	27-Nov-2022	✓	**07-Jun-2022**	27-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW018_220531, 0902_SW019_220531, 0902_SW020_220531, 0902_SW023_220531, 0902_SW024_220531, 0902_SW030_220531	**31-May-2022**	**07-Jun-2022**	27-Nov-2022	✓	**08-Jun-2022**	27-Nov-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) 0902_MW025_220524, 0902_MW026_220524, 0902_MW032_220524, 0902_MW033_220524, 0902_MW034_220524, 0902_MW046_220524, 0902_MW054_220524	**24-May-2022**	**06-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW064_220524, 0902_MW065_220524, 0902_MW066_220524, 0902_MW072_220524, 0902_MW073_220524, 0902_MW074_220524, 0902_MW107D_220524, 0902_MW107I_220524, 0902_QC100_220524, 0902_QC102_220524, 0902_SW001_220524	**24-May-2022**	**07-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC300_220524	**24-May-2022**	**07-Jun-2022**	20-Nov-2022	✓	**08-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW007_220525, 0902_MW008_220525, 0902_MW024_220525, 0902_MW027_220525, 0902_MW028_220525, 0902_MW040_220525, 0902_MW041_220525, 0902_MW042_220525, 0902_MW043_220525, 0902_MW047_220525, 0902_MW048_220525, 0902_MW050_220525, 0902_MW051_220525, 0902_MW052_220525, 0902_MW056_220525	**25-May-2022**	**06-Jun-2022**	21-Nov-2022	✓	**07-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW060_220525, 0902_MW061_220525, 0902_QC103_220525	**25-May-2022**	**07-Jun-2022**	21-Nov-2022	✓	**07-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC301_220525	**25-May-2022**	**07-Jun-2022**	21-Nov-2022	✓	**08-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW002_220526, 0902_MW004_220526, 0902_MW005_220526, 0902_MW016_220526, 0902_MW030_220526, 0902_MW053_220526	**26-May-2022**	**06-Jun-2022**	22-Nov-2022	✓	**07-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW067_220526, 0902_MW068_220526, 0902_MW070_220526, 0902_MW071_220526, 0902_MW108_220526, 0902_MW111_220526, 0902_MW112_220526, 0902_MW113_220526, 0902_MW114_220526, 0902_QC302_220526, 0902_QC105_220526, 0902_QC106_220526	**26-May-2022**	**07-Jun-2022**	22-Nov-2022	✓	**07-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW005_220526, 0902_SW007_220526, 0902_SW014_220526	**26-May-2022**	**07-Jun-2022**	22-Nov-2022	✓	**08-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids - Continued							
0902_MW012_220527, 0902_MW013_220527, 0902_MW014_220527, 0902_MW015_220527, 0902_MW017_220527, 0902_MW020_220527, 0902_MW021_220527, 0902_MW023_220527, 0902_MW036_220527	**27-May-2022**	**06-Jun-2022**	23-Nov-2022	✓	**07-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW062_220527, 0902_MW063_220527, 0902_MW069_220527, 0902_MW109_220527, 0902_MW110_220527, 0902_SW002_220527, 0902_QC303_220527, 0902_QC107_220527, 0902_QC108_220527	**27-May-2022**	**07-Jun-2022**	23-Nov-2022	✓	**07-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW011_220527, 0902_SW013_220527, 0902_SW037_220527	**27-May-2022**	**07-Jun-2022**	23-Nov-2022	✓	**08-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW022_220530	**30-May-2022**	**06-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW075_220530, 0902_MW081_220530, 0902_MW082_220530, 0902_MW091_220530, 0902_MW097_220530, 0902_MW098_220530, 0902_QC304_220530, 0902_QC109_220530	**30-May-2022**	**07-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW003_220530, 0902_SW015_220530, 0902_SW016_220530, 0902_SW022_220530, 0902_SW035_220530	**30-May-2022**	**07-Jun-2022**	26-Nov-2022	✓	**08-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW057_220531, 0902_MW059_220531, 0902_MW076_220531, 0902_MW077_220531, 0902_MW078_220531, 0902_MW079_220531, 0902_MW092_220531, 0902_MW106_220531, 0902_QC111_220531, 0902_QC112_220531, 0902_QC305_220531	**31-May-2022**	**07-Jun-2022**	27-Nov-2022	✓	**07-Jun-2022**	27-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW018_220531, 0902_SW019_220531, 0902_SW020_220531, 0902_SW023_220531, 0902_SW024_220531, 0902_SW030_220531	**31-May-2022**	**07-Jun-2022**	27-Nov-2022	✓	**08-Jun-2022**	27-Nov-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0902_MW025_220524, 0902_MW026_220524, 0902_MW032_220524, 0902_MW033_220524, 0902_MW034_220524, 0902_MW046_220524, 0902_MW054_220524	**24-May-2022**	**06-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW064_220524, 0902_MW065_220524, 0902_MW066_220524, 0902_MW072_220524, 0902_MW073_220524, 0902_MW074_220524, 0902_MW107D_220524, 0902_MW107I_220524, 0902_QC100_220524, 0902_QC102_220524, 0902_SW001_220524	**24-May-2022**	**07-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC300_220524	**24-May-2022**	**07-Jun-2022**	20-Nov-2022	✓	**08-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW007_220525, 0902_MW008_220525, 0902_MW024_220525, 0902_MW027_220525, 0902_MW028_220525, 0902_MW040_220525, 0902_MW041_220525, 0902_MW042_220525, 0902_MW043_220525, 0902_MW047_220525, 0902_MW048_220525, 0902_MW050_220525, 0902_MW051_220525, 0902_MW052_220525, 0902_MW056_220525	**25-May-2022**	**06-Jun-2022**	21-Nov-2022	✓	**07-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW060_220525, 0902_MW061_220525, 0902_QC103_220525	**25-May-2022**	**07-Jun-2022**	21-Nov-2022	✓	**07-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC301_220525	**25-May-2022**	**07-Jun-2022**	21-Nov-2022	✓	**08-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW002_220526, 0902_MW004_220526, 0902_MW005_220526, 0902_MW016_220526, 0902_MW030_220526, 0902_MW053_220526	**26-May-2022**	**06-Jun-2022**	22-Nov-2022	✓	**07-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW067_220526, 0902_MW068_220526, 0902_MW070_220526, 0902_MW071_220526, 0902_MW108_220526, 0902_MW111_220526, 0902_MW112_220526, 0902_MW113_220526, 0902_MW114_220526, 0902_QC302_220526, 0902_QC105_220526, 0902_QC106_220526	**26-May-2022**	**07-Jun-2022**	22-Nov-2022	✓	**07-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW005_220526, 0902_SW007_220526, 0902_SW014_220526	**26-May-2022**	**07-Jun-2022**	22-Nov-2022	✓	**08-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides - Continued							
HDPE (no PTFE) (EP231X) 0902_MW012_220527, 0902_MW013_220527, 0902_MW014_220527, 0902_MW015_220527, 0902_MW017_220527, 0902_MW020_220527, 0902_MW021_220527, 0902_MW023_220527, 0902_MW036_220527	**27-May-2022**	**06-Jun-2022**	23-Nov-2022	✓	**07-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW062_220527, 0902_MW063_220527, 0902_MW069_220527, 0902_MW109_220527, 0902_MW110_220527, 0902_SW002_220527, 0902_QC303_220527, 0902_QC107_220527, 0902_QC108_220527	**27-May-2022**	**07-Jun-2022**	23-Nov-2022	✓	**07-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW011_220527, 0902_SW013_220527, 0902_SW037_220527	**27-May-2022**	**07-Jun-2022**	23-Nov-2022	✓	**08-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW022_220530	**30-May-2022**	**06-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW075_220530, 0902_MW081_220530, 0902_MW082_220530, 0902_MW091_220530, 0902_MW097_220530, 0902_MW098_220530, 0902_QC304_220530, 0902_QC109_220530	**30-May-2022**	**07-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW003_220530, 0902_SW015_220530, 0902_SW016_220530, 0902_SW022_220530, 0902_SW035_220530	**30-May-2022**	**07-Jun-2022**	26-Nov-2022	✓	**08-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW057_220531, 0902_MW059_220531, 0902_MW076_220531, 0902_MW077_220531, 0902_MW078_220531, 0902_MW079_220531, 0902_MW092_220531, 0902_MW106_220531, 0902_QC111_220531, 0902_QC112_220531, 0902_QC305_220531	**31-May-2022**	**07-Jun-2022**	27-Nov-2022	✓	**07-Jun-2022**	27-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW018_220531, 0902_SW019_220531, 0902_SW020_220531, 0902_SW023_220531, 0902_SW024_220531, 0902_SW030_220531	**31-May-2022**	**07-Jun-2022**	27-Nov-2022	✓	**08-Jun-2022**	27-Nov-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW025_220524, 0902_MW026_220524, 0902_MW032_220524, 0902_MW033_220524, 0902_MW034_220524, 0902_MW046_220524, 0902_MW054_220524	**24-May-2022**	**06-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW064_220524, 0902_MW065_220524, 0902_MW066_220524, 0902_MW072_220524, 0902_MW073_220524, 0902_MW074_220524, 0902_MW107D_220524, 0902_MW107I_220524, 0902_QC100_220524, 0902_QC102_220524, 0902_SW001_220524	**24-May-2022**	**07-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X)							
0902_QC300_220524	**24-May-2022**	**07-Jun-2022**	20-Nov-2022	✓	**08-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW007_220525, 0902_MW008_220525, 0902_MW024_220525, 0902_MW027_220525, 0902_MW028_220525, 0902_MW040_220525, 0902_MW041_220525, 0902_MW042_220525, 0902_MW043_220525, 0902_MW047_220525, 0902_MW048_220525, 0902_MW050_220525, 0902_MW051_220525, 0902_MW052_220525, 0902_MW056_220525	**25-May-2022**	**06-Jun-2022**	21-Nov-2022	✓	**07-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW060_220525, 0902_MW061_220525, 0902_QC103_220525	**25-May-2022**	**07-Jun-2022**	21-Nov-2022	✓	**07-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X)							
0902_QC301_220525	**25-May-2022**	**07-Jun-2022**	21-Nov-2022	✓	**08-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW002_220526, 0902_MW004_220526, 0902_MW005_220526, 0902_MW016_220526, 0902_MW030_220526, 0902_MW053_220526	**26-May-2022**	**06-Jun-2022**	22-Nov-2022	✓	**07-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X)							
0902_MW067_220526, 0902_MW068_220526, 0902_MW070_220526, 0902_MW071_220526, 0902_MW108_220526, 0902_MW111_220526, 0902_MW112_220526, 0902_MW113_220526, 0902_MW114_220526, 0902_QC302_220526, 0902_QC105_220526, 0902_QC106_220526	**26-May-2022**	**07-Jun-2022**	22-Nov-2022	✓	**07-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X)							
0902_SW005_220526, 0902_SW007_220526, 0902_SW014_220526	**26-May-2022**	**07-Jun-2022**	22-Nov-2022	✓	**08-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued							
0902_MW012_220527, 0902_MW013_220527, 0902_MW014_220527, 0902_MW015_220527, 0902_MW017_220527, 0902_MW020_220527, 0902_MW021_220527, 0902_MW023_220527, 0902_MW036_220527	**27-May-2022**	**06-Jun-2022**	23-Nov-2022	✓	**07-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW062_220527, 0902_MW063_220527, 0902_MW069_220527, 0902_MW109_220527, 0902_MW110_220527, 0902_SW002_220527, 0902_QC303_220527, 0902_QC107_220527, 0902_QC108_220527	**27-May-2022**	**07-Jun-2022**	23-Nov-2022	✓	**07-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW011_220527, 0902_SW013_220527, 0902_SW037_220527	**27-May-2022**	**07-Jun-2022**	23-Nov-2022	✓	**08-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW022_220530	**30-May-2022**	**06-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW075_220530, 0902_MW081_220530, 0902_MW082_220530, 0902_MW091_220530, 0902_MW097_220530, 0902_MW098_220530, 0902_QC304_220530, 0902_QC109_220530	**30-May-2022**	**07-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW003_220530, 0902_SW015_220530, 0902_SW016_220530, 0902_SW022_220530, 0902_SW035_220530	**30-May-2022**	**07-Jun-2022**	26-Nov-2022	✓	**08-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW057_220531, 0902_MW059_220531, 0902_MW076_220531, 0902_MW077_220531, 0902_MW078_220531, 0902_MW079_220531, 0902_MW092_220531, 0902_MW106_220531, 0902_QC111_220531, 0902_QC112_220531, 0902_QC305_220531	**31-May-2022**	**07-Jun-2022**	27-Nov-2022	✓	**07-Jun-2022**	27-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW018_220531, 0902_SW019_220531, 0902_SW020_220531, 0902_SW023_220531, 0902_SW024_220531, 0902_SW030_220531	**31-May-2022**	**07-Jun-2022**	27-Nov-2022	✓	**08-Jun-2022**	27-Nov-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X) 0902_MW025_220524, 0902_MW026_220524, 0902_MW032_220524, 0902_MW033_220524, 0902_MW034_220524, 0902_MW046_220524, 0902_MW054_220524	**24-May-2022**	**06-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW064_220524, 0902_MW065_220524, 0902_MW066_220524, 0902_MW072_220524, 0902_MW073_220524, 0902_MW074_220524, 0902_MW107D_220524, 0902_MW107I_220524, 0902_QC100_220524, 0902_QC102_220524, 0902_SW001_220524	**24-May-2022**	**07-Jun-2022**	20-Nov-2022	✓	**07-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC300_220524	**24-May-2022**	**07-Jun-2022**	20-Nov-2022	✓	**08-Jun-2022**	20-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW007_220525, 0902_MW008_220525, 0902_MW024_220525, 0902_MW027_220525, 0902_MW028_220525, 0902_MW040_220525, 0902_MW041_220525, 0902_MW042_220525, 0902_MW043_220525, 0902_MW047_220525, 0902_MW048_220525, 0902_MW050_220525, 0902_MW051_220525, 0902_MW052_220525, 0902_MW056_220525	**25-May-2022**	**06-Jun-2022**	21-Nov-2022	✓	**07-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW060_220525, 0902_MW061_220525, 0902_QC103_220525	**25-May-2022**	**07-Jun-2022**	21-Nov-2022	✓	**07-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_QC301_220525	**25-May-2022**	**07-Jun-2022**	21-Nov-2022	✓	**08-Jun-2022**	21-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW002_220526, 0902_MW004_220526, 0902_MW005_220526, 0902_MW016_220526, 0902_MW030_220526, 0902_MW053_220526	**26-May-2022**	**06-Jun-2022**	22-Nov-2022	✓	**07-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW067_220526, 0902_MW068_220526, 0902_MW070_220526, 0902_MW071_220526, 0902_MW108_220526, 0902_MW111_220526, 0902_MW112_220526, 0902_MW113_220526, 0902_MW114_220526, 0902_QC302_220526, 0902_QC105_220526, 0902_QC106_220526	**26-May-2022**	**07-Jun-2022**	22-Nov-2022	✓	**07-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW005_220526, 0902_SW007_220526, 0902_SW014_220526	**26-May-2022**	**07-Jun-2022**	22-Nov-2022	✓	**08-Jun-2022**	22-Nov-2022	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums - Continued							
0902_MW012_220527, 0902_MW013_220527, 0902_MW014_220527, 0902_MW015_220527, 0902_MW017_220527, 0902_MW020_220527, 0902_MW021_220527, 0902_MW023_220527, 0902_MW036_220527	**27-May-2022**	**06-Jun-2022**	23-Nov-2022	✓	**07-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW062_220527, 0902_MW063_220527, 0902_MW069_220527, 0902_MW109_220527, 0902_MW110_220527, 0902_SW002_220527, 0902_QC303_220527, 0902_QC107_220527, 0902_QC108_220527	**27-May-2022**	**07-Jun-2022**	23-Nov-2022	✓	**07-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW011_220527, 0902_SW013_220527, 0902_SW037_220527	**27-May-2022**	**07-Jun-2022**	23-Nov-2022	✓	**08-Jun-2022**	23-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW022_220530	**30-May-2022**	**06-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW075_220530, 0902_MW081_220530, 0902_MW082_220530, 0902_MW091_220530, 0902_MW097_220530, 0902_MW098_220530, 0902_QC304_220530, 0902_QC109_220530	**30-May-2022**	**07-Jun-2022**	26-Nov-2022	✓	**07-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW003_220530, 0902_SW015_220530, 0902_SW016_220530, 0902_SW022_220530, 0902_SW035_220530	**30-May-2022**	**07-Jun-2022**	26-Nov-2022	✓	**08-Jun-2022**	26-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_MW057_220531, 0902_MW059_220531, 0902_MW076_220531, 0902_MW077_220531, 0902_MW078_220531, 0902_MW079_220531, 0902_MW092_220531, 0902_MW106_220531, 0902_QC111_220531, 0902_QC112_220531, 0902_QC305_220531	**31-May-2022**	**07-Jun-2022**	27-Nov-2022	✓	**07-Jun-2022**	27-Nov-2022	✓
HDPE (no PTFE) (EP231X) 0902_SW018_220531, 0902_SW019_220531, 0902_SW020_220531, 0902_SW023_220531, 0902_SW024_220531, 0902_SW030_220531	**31-May-2022**	**07-Jun-2022**	27-Nov-2022	✓	**08-Jun-2022**	27-Nov-2022	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	4	33	**12.12**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	39	**10.26**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	39	**5.13**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	39	**5.13**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	39	**5.13**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Alkalinity by Auto Titrator	ED037-P	4	36	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	3	22	**13.64**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	6	115	**5.22**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	3	22	**13.64**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by Auto Titrator	ED037-P	4	36	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	4	22	**18.18**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	6	115	**5.22**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	4	22	**18.18**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	20	**15.00**	**15.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Method Blanks (MB) - Continued							
Chloride by Discrete Analyser	ED045G	2	22	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	6	115	**5.22**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	22	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	22	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	115	**3.48**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	22	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Alkalinity by Auto Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. PC Titrate) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G.The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030F. This method is compliant with NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2219017**
Amendment : **1**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Sepan.Mahamad@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 7
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 37829	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: NSW_0902_PFASOMP		
Sampler	: ANDREW SPOOR, MAT JENKINS		

Dates

Date Samples Received	: 31-May-2022 18:20	Issue Date	: 24-Jun-2022
Client Requested Due Date	: 08-Jun-2022	Scheduled Reporting Date	: **08-Jun-2022**

Delivery Details

Mode of Delivery	: Client Drop Off	Security Seal	: Not Available
No. of coolers/boxes	: 5	Temperature	: 0.1'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 137 / 133

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- This is an updated SRN which reflects a change in analysis for samples 124, 133, 134 and 135.
- This is an updated SRN which reflects the addition of NT-01 and NT-02 analysis for samples 119 and 129 as per client request.
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2219017-077	24-May-2022 11:56	0902_SD001_220524	✓
ES2219017-078	27-May-2022 10:59	0902_SD002_220527	✓
ES2219017-079	27-May-2022 09:44	0902_SD003_220527	✓
ES2219017-080	26-May-2022 12:09	0902_SD005_220526	✓
ES2219017-081	26-May-2022 13:21	0902_SD007_220526	✓
ES2219017-082	26-May-2022 14:17	0902_SD008_220526	✓
ES2219017-083	26-May-2022 15:22	0902_SD009_220526	✓
ES2219017-084	27-May-2022 12:40	0902_SD011_220527	✓
ES2219017-085	27-May-2022 13:09	0902_SD013_220527	✓
ES2219017-086	26-May-2022 10:33	0902_SD014_220526	✓
ES2219017-087	30-May-2022 15:17	0902_SD015_220530	✓
ES2219017-088	30-May-2022 15:52	0902_SD016_220530	✓
ES2219017-089	31-May-2022 09:36	0902_SD018_220531	✓
ES2219017-090	31-May-2022 09:10	0902_SD019_220531	✓
ES2219017-091	31-May-2022 08:37	0902_SD020_220531	✓
ES2219017-092	30-May-2022 13:04	0902_SD022_220530	✓
ES2219017-093	31-May-2022 08:06	0902_SD023_220531	✓
ES2219017-094	31-May-2022 11:17	0902_SD024_220531	✓
ES2219017-095	31-May-2022 10:13	0902_SD030_220531	✓
ES2219017-096	30-May-2022 14:19	0902_SD035_220530	✓
ES2219017-121	24-May-2022 15:23	0902_QC101_220524	✓
ES2219017-130	30-May-2022 15:17	0902_QC110_220530	✓

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	(On Hold) SOIL No analysis requested	SOIL - EA055-103 Moisture Content
ES2219017-077	24-May-2022 11:56	0902_SD001_220524		✓
ES2219017-078	27-May-2022 10:59	0902_SD002_220527		✓
ES2219017-079	27-May-2022 09:44	0902_SD003_220527		✓
ES2219017-080	26-May-2022 12:09	0902_SD005_220526		✓
ES2219017-081	26-May-2022 13:21	0902_SD007_220526		✓
ES2219017-082	26-May-2022 14:17	0902_SD008_220526		✓
ES2219017-083	26-May-2022 15:22	0902_SD009_220526		✓
ES2219017-084	27-May-2022 12:40	0902_SD011_220527		✓
ES2219017-085	27-May-2022 13:09	0902_SD013_220527		✓
ES2219017-086	26-May-2022 10:33	0902_SD014_220526		✓
ES2219017-087	30-May-2022 15:17	0902_SD015_220530		✓
ES2219017-088	30-May-2022 15:52	0902_SD016_220530		✓
ES2219017-089	31-May-2022 09:36	0902_SD018_220531		✓
ES2219017-090	31-May-2022 09:10	0902_SD019_220531		✓
ES2219017-091	31-May-2022 08:37	0902_SD020_220531		✓
ES2219017-092	30-May-2022 13:04	0902_SD022_220530		✓
ES2219017-093	31-May-2022 08:06	0902_SD023_220531		✓
ES2219017-094	31-May-2022 11:17	0902_SD024_220531		✓
ES2219017-095	31-May-2022 10:13	0902_SD030_220531		✓
ES2219017-096	30-May-2022 14:19	0902_SD035_220530		✓
ES2219017-121	24-May-2022 15:23	0902_QC101_220524		✓
ES2219017-124	26-May-2022 12:09	0902_QC104_220526	✓	
ES2219017-130	30-May-2022 15:17	0902_QC110_220530		✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EG020F Dissolved Metals by ICP/MS	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EK067G Total Phosphorus as P By Discrete Analyser	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-04 Nitrite and Nitrate
ES2219017-001	26-May-2022 12:52	0902_MW002_220526				✓		
ES2219017-002	26-May-2022 11:37	0902_MW004_220526				✓		
ES2219017-003	26-May-2022 10:51	0902_MW005_220526				✓		
ES2219017-004	25-May-2022 10:52	0902_MW007_220525				✓		
ES2219017-005	25-May-2022 08:59	0902_MW008_220525				✓		
ES2219017-006	27-May-2022 12:17	0902_MW012_220527				✓		

			WATER - EG020F Dissolved Metals by ICP/MS	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EK067G Total Phosphorus as P By Discrete Analyser	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-04 Nitrite and Nitrate
ES2219017-007	27-May-2022 12:56	0902_MW013_220527				✓		
ES2219017-008	27-May-2022 13:38	0902_MW014_220527				✓		
ES2219017-009	27-May-2022 13:53	0902_MW015_220527				✓		
ES2219017-010	26-May-2022 10:10	0902_MW016_220526				✓		
ES2219017-011	27-May-2022 13:18	0902_MW017_220527				✓		
ES2219017-012	27-May-2022 10:57	0902_MW020_220527				✓		
ES2219017-013	27-May-2022 09:03	0902_MW021_220527				✓		
ES2219017-014	30-May-2022 11:47	0902_MW022_220530	✓	✓	✓	✓	✓	✓
ES2219017-015	27-May-2022 10:25	0902_MW023_220527				✓		
ES2219017-016	25-May-2022 14:55	0902_MW024_220525				✓		
ES2219017-017	24-May-2022 16:32	0902_MW025_220524				✓		
ES2219017-018	24-May-2022 15:52	0902_MW026_220524				✓		
ES2219017-019	25-May-2022 14:28	0902_MW027_220525				✓		
ES2219017-020	25-May-2022 12:36	0902_MW028_220525				✓		
ES2219017-021	26-May-2022 08:36	0902_MW030_220526				✓		
ES2219017-022	24-May-2022 12:40	0902_MW032_220524				✓		
ES2219017-023	24-May-2022 12:56	0902_MW033_220524				✓		
ES2219017-024	24-May-2022 12:33	0902_MW034_220524				✓		
ES2219017-025	27-May-2022 14:52	0902_MW036_220527				✓		
ES2219017-026	25-May-2022 08:43	0902_MW040_220525				✓		
ES2219017-027	25-May-2022 09:47	0902_MW041_220525				✓		
ES2219017-028	25-May-2022 13:22	0902_MW042_220525				✓		
ES2219017-029	25-May-2022 10:23	0902_MW043_220525				✓		
ES2219017-030	24-May-2022 16:20	0902_MW046_220524				✓		
ES2219017-031	25-May-2022 11:22	0902_MW047_220525				✓		
ES2219017-032	25-May-2022 11:08	0902_MW048_220525				✓		
ES2219017-033	25-May-2022 14:11	0902_MW050_220525				✓		
ES2219017-034	25-May-2022 11:46	0902_MW051_220525				✓		
ES2219017-035	25-May-2022 11:34	0902_MW052_220525				✓		
ES2219017-036	26-May-2022 09:10	0902_MW053_220526				✓		
ES2219017-037	24-May-2022 10:05	0902_MW054_220524				✓		
ES2219017-038	25-May-2022 17:02	0902_MW056_220525				✓		
ES2219017-039	31-May-2022 11:12	0902_MW057_220531				✓		
ES2219017-040	31-May-2022 14:35	0902_MW059_220531				✓		
ES2219017-041	25-May-2022 16:29	0902_MW060_220525				✓		
ES2219017-042	25-May-2022 16:41	0902_MW061_220525				✓		
ES2219017-043	27-May-2022 08:10	0902_MW062_220527				✓		
ES2219017-044	27-May-2022 08:24	0902_MW063_220527				✓		
ES2219017-045	24-May-2022 14:37	0902_MW064_220524				✓		
ES2219017-046	24-May-2022 14:55	0902_MW065_220524				✓		
ES2219017-047	24-May-2022 15:20	0902_MW066_220524				✓		

			WATER - EG020F Dissolved Metals by ICP/MS	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EK067G Total Phosphorus as P By Discrete Analyser	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-04 Nitrite and Nitrate
ES2219017-048	26-May-2022 16:42	0902_MW067_220526				✓		
ES2219017-049	26-May-2022 19:59	0902_MW068_220526				✓		
ES2219017-050	27-May-2022 07:55	0902_MW069_220527				✓		
ES2219017-051	26-May-2022 09:29	0902_MW070_220526				✓		
ES2219017-052	26-May-2022 09:37	0902_MW071_220526				✓		
ES2219017-053	24-May-2022 15:40	0902_MW072_220524				✓		
ES2219017-054	24-May-2022 13:11	0902_MW073_220524				✓		
ES2219017-055	24-May-2022 13:20	0902_MW074_220524				✓		
ES2219017-056	30-May-2022 12:23	0902_MW075_220530	✓	✓	✓	✓	✓	✓
ES2219017-057	31-May-2022 13:31	0902_MW076_220531				✓		
ES2219017-058	31-May-2022 13:48	0902_MW077_220531				✓		
ES2219017-059	31-May-2022 11:50	0902_MW078_220531				✓		
ES2219017-060	31-May-2022 12:15	0902_MW079_220531				✓		
ES2219017-061	30-May-2022 12:49	0902_MW081_220530	✓	✓	✓	✓	✓	✓
ES2219017-062	30-May-2022 13:23	0902_MW082_220530	✓	✓	✓	✓	✓	✓
ES2219017-063	30-May-2022 16:14	0902_MW091_220530	✓	✓	✓	✓	✓	✓
ES2219017-064	31-May-2022 07:17	0902_MW092_220531				✓		
ES2219017-065	30-May-2022 15:40	0902_MW097_220530	✓	✓	✓	✓	✓	✓
ES2219017-066	30-May-2022 15:01	0902_MW098_220530	✓	✓	✓	✓	✓	✓
ES2219017-067	31-May-2022 12:30	0902_MW106_220531				✓		
ES2219017-068	24-May-2022 10:42	0902_MW107D_220524				✓		
ES2219017-069	24-May-2022 10:29	0902_MW107I_220524				✓		
ES2219017-070	26-May-2022 08:50	0902_MW108_220526				✓		
ES2219017-071	27-May-2022 09:55	0902_MW109_220527				✓		
ES2219017-072	27-May-2022 10:58	0902_MW110_220527				✓		
ES2219017-073	26-May-2022 10:56	0902_MW111_220526				✓		
ES2219017-074	26-May-2022 11:27	0902_MW112_220526				✓		
ES2219017-075	26-May-2022 12:59	0902_MW113_220526				✓		
ES2219017-076	26-May-2022 13:50	0902_MW114_220526				✓		
ES2219017-097	27-May-2022 09:14	0902_SW002_220527				✓		
ES2219017-098	30-May-2022 11:32	0902_SW003_220530	✓	✓	✓	✓	✓	✓
ES2219017-099	26-May-2022 12:05	0902_SW005_220526				✓		
ES2219017-100	26-May-2022 13:19	0902_SW007_220526				✓		
ES2219017-101	27-May-2022 12:41	0902_SW011_220527				✓		
ES2219017-102	27-May-2022 13:11	0902_SW013_220527				✓		
ES2219017-103	26-May-2022 10:32	0902_SW014_220526				✓		
ES2219017-104	30-May-2022 15:18	0902_SW015_220530	✓	✓	✓	✓	✓	✓
ES2219017-105	30-May-2022 15:50	0902_SW016_220530	✓	✓	✓	✓	✓	✓
ES2219017-106	31-May-2022 09:36	0902_SW018_220531				✓		
ES2219017-107	31-May-2022 09:08	0902_SW019_220531				✓		
ES2219017-108	31-May-2022 08:36	0902_SW020_220531	✓	✓	✓	✓	✓	✓

			WATER - EG020F Dissolved Metals by ICP/MS	WATER - EK055G Ammonia as N By Discrete Analyser	WATER - EK067G Total Phosphorus as P By Discrete Analyser	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-04 Nitrite and Nitrate
ES2219017-109	30-May-2022 13:03	0902_SW022_220530	✓	✓	✓	✓	✓	✓
ES2219017-110	31-May-2022 10:20	0902_SW023_220531	✓	✓	✓	✓	✓	✓
ES2219017-111	31-May-2022 11:16	0902_SW024_220531				✓		
ES2219017-112	31-May-2022 10:14	0902_SW030_220531				✓		
ES2219017-113	30-May-2022 14:18	0902_SW035_220530	✓	✓	✓	✓	✓	✓
ES2219017-114	27-May-2022 10:10	0902_SW037_220527				✓		
ES2219017-115	24-May-2022 19:54	0902_QC300_220524				✓		
ES2219017-116	25-May-2022 19:54	0902_QC301_220525				✓		
ES2219017-117	26-May-2022 19:56	0902_QC302_220526				✓		
ES2219017-118	27-May-2022 14:57	0902_QC303_220527				✓		
ES2219017-119	30-May-2022 07:26	0902_QC304_220530	✓	✓	✓	✓	✓	✓
ES2219017-120	24-May-2022 10:07	0902_QC100_220524				✓		
ES2219017-122	24-May-2022 15:21	0902_QC102_220524				✓		
ES2219017-123	25-May-2022 14:29	0902_QC103_220525				✓		
ES2219017-125	26-May-2022 13:20	0902_QC105_220526				✓		
ES2219017-126	26-May-2022 13:57	0902_QC106_220526				✓		
ES2219017-127	27-May-2022 07:56	0902_QC107_220527				✓		
ES2219017-128	27-May-2022 14:53	0902_QC108_220527				✓		
ES2219017-129	30-May-2022 11:35	0902_QC109_220530	✓	✓	✓	✓	✓	✓
ES2219017-131	31-May-2022 09:09	0902_QC111_220531				✓		
ES2219017-132	31-May-2022 10:15	0902_QC112_220531				✓		
ES2219017-136	24-May-2022 11:52	0902_SW001_220524				✓		
ES2219017-137	31-May-2022 07:27	0902_QC305_220531				✓		

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	(On Hold) WATER No analysis requested
ES2219017-133	31-May-2022 12:14	0902_QC113_220531	✓
ES2219017-134	31-May-2022 13:31	0902_QC114_220531	✓
ES2219017-135	31-May-2022 14:36	0902_QC115_220531	✓

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE		
- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com
ANDREW SPOOR		
- *AU Certificate of Analysis - NATA (COA)	Email	Andrew.Spoor@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Andrew.Spoor@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Andrew.Spoor@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Andrew.Spoor@aecom.com
- Chain of Custody (CoC) (COC)	Email	Andrew.Spoor@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Andrew.Spoor@aecom.com
- EDI Format - XTab (XTAB)	Email	Andrew.Spoor@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Andrew.Spoor@aecom.com
CATHERINE HANSEN		
- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	catherine.hansen@aecom.com
GEOFF TREDINNICK		
- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Geoff.Tredinnick@aecom.com
MAT JENKINS		
- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	mat.jenkins@aecom.com
NICOLA TOMLIN		
- *AU Certificate of Analysis - NATA (COA)	Email	nicola.tomlin@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	nicola.tomlin@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	nicola.tomlin@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	nicola.tomlin@aecom.com
- Chain of Custody (CoC) (COC)	Email	nicola.tomlin@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	nicola.tomlin@aecom.com
- EDI Format - XTab (XTAB)	Email	nicola.tomlin@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	nicola.tomlin@aecom.com

CHAIN OF CUSTODY

(ALS) COC#: 37829 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	JUSTIN DATE TIME: 31/5/22 6.20pm

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No (N/A)

Free ice / frozen ice bricks present upon receipt? (Yes) No N/A

Random Sample Temperature on Receipt: 0-1 °C

Other comments:

Environmental Division Sydney

Work Order Reference

ES2219017

Telephone : +61-2-8784 8555

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW002_220526		26/05/2022 12:52 PM	Water	ALS: 3 Non ALS: 0	No		X			
002	0902_MW004_220526		26/05/2022 11:37 AM	Water	ALS: 3 Non ALS: 0	No		X			
003	0902_MW005_220526		26/05/2022 10:51 AM	Water	ALS: 3 Non ALS: 0	No		X			
004	0902_MW007_220525		25/05/2022 10:52 AM	Water	ALS: 3 Non ALS: 0	No		X			
005	0902_MW008_220525		25/05/2022 08:59 AM	Water	ALS: 3 Non ALS: 0	No		X			
006	0902_MW012_220527		27/05/2022 12:17 PM	Water	ALS: 3 Non ALS: 0	No		X			
007	0902_MW013_220527		27/05/2022 12:56 PM	Water	ALS: 3 Non ALS: 0	No		X			
008	0902_MW014_220527		27/05/2022 01:38 PM	Water	ALS: 3 Non ALS: 0	No		X			
009	0902_MW015_220527		27/05/2022 01:53 PM	Water	ALS: 6 Non ALS: 0	No		X			Additional volume taken

CHAIN OF CUSTODY

ALS COC#: 37829 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_MW016_220526		26/05/2022 10:10 AM	Water	ALS: 3 Non ALS: 0	No		X			
011	0902_MW017_220527		27/05/2022 01:18 PM	Water	ALS: 3 Non ALS: 0	No		X			
012	0902_MW020_220527		27/05/2022 10:57 AM	Water	ALS: 3 Non ALS: 0	No		X			
013	0902_MW021_220527		27/05/2022 09:03 AM	Water	ALS: 3 Non ALS: 0	No		X			
014	0902_MW022_220530		30/05/2022 11:47 AM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	
015	0902_MW023_220527		27/05/2022 10:25 AM	Water	ALS: 3 Non ALS: 0	No		X			
016	0902_MW024_220525		25/05/2022 02:55 PM	Water	ALS: 3 Non ALS: 0	No		X			
017	0902_MW025_220524		24/05/2022 04:32 PM	Water	ALS: 3 Non ALS: 0	No		X			
018	0902_MW026_220524		24/05/2022 03:52 PM	Water	ALS: 3 Non ALS: 0	No		X			

CHAIN OF CUSTODY

(ALS) *COC#:* 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0902_MW027_220525		25/05/2022 02:28 PM	Water	ALS: 3 Non ALS: 0	No		X			
020	0902_MW028_220525	Extra volume	25/05/2022 12:36 PM	Water	ALS: 6 Non ALS: 0	No		X			Extra volume
021	0902_MW030_220526		26/05/2022 08:36 AM	Water	ALS: 3 Non ALS: 0	No		X			
022	0902_MW032_220524		24/05/2022 12:40 PM	Water	ALS: 3 Non ALS: 0	No		X			
023	0902_MW033_220524		24/05/2022 12:56 PM	Water	ALS: 3 Non ALS: 0	No		X			
024	0902_MW034_220524		24/05/2022 12:33 PM	Water	ALS: 3 Non ALS: 0	No		X			
025	0902_MW036_220527		27/05/2022 02:52 PM	Water	ALS: 3 Non ALS: 0	No		X			
026	0902_MW040_220525		25/05/2022 08:43 AM	Water	ALS: 3 Non ALS: 0	No		X			
027	0902_MW041_220525		25/05/2022 09:47 AM	Water	ALS: 3 Non ALS: 0	No		X			

CHAIN OF CUSTODY

(ALS) COC#: 37829 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
028	0902_MW042_220525		25/05/2022 01:22 PM	Water	ALS: 3 Non ALS: 0	No		X			
029	0902_MW043_220525	Extra volume	25/05/2022 10:23 AM	Water	ALS: 6 Non ALS: 0	No		X			Extra volume
030	0902_MW046_220524		24/05/2022 04:20 PM	Water	ALS: 3 Non ALS: 0	No		X			
031	0902_MW047_220525		25/05/2022 11:22 AM	Water	ALS: 3 Non ALS: 0	No		X			
032	0902_MW048_220525		25/05/2022 11:08 AM	Water	ALS: 3 Non ALS: 0	No		X			
033	0902_MW050_220525		25/05/2022 02:11 PM	Water	ALS: 3 Non ALS: 0	No		X			
034	0902_MW051_220525		25/05/2022 11:46 AM	Water	ALS: 3 Non ALS: 0	No		X			
035	0902_MW052_220525		25/05/2022 11:34 AM	Water	ALS: 3 Non ALS: 0	No		X			
036	0902_MW053_220526		26/05/2022 09:10 AM	Water	ALS: 3 Non ALS: 0	No		X			

CHAIN OF CUSTODY

ALS COC#: 37829 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
037	0902_MW054_220524		24/05/2022 10:05 AM	Water	ALS: 3 Non ALS: 0	No		X			
038	0902_MW056_220525		25/05/2022 05:02 PM	Water	ALS: 3 Non ALS: 0	No		X			
039	0902_MW057_220531		24/05/2022 11:12 AM	Water	ALS: 3 Non ALS: 0	No		X			
040	0902_MW059_220531		31/05/2022 02:35 PM	Water	ALS: 3 Non ALS: 0	No		X			
041	0902_MW060_220525		25/05/2022 04:29 PM	Water	ALS: 3 Non ALS: 0	No		X			
042	0902_MW061_220525		25/05/2022 04:41 PM	Water	ALS: 3 Non ALS: 0	No		X			
043	0902_MW062_220527		27/05/2022 08:10 AM	Water	ALS: 3 Non ALS: 0	No		X			
044	0902_MW063_220527		27/05/2022 08:24 AM	Water	ALS: 3 Non ALS: 0	No		X			
045	0902_MW064_220524		24/05/2022 02:37 PM	Water	ALS: 3 Non ALS: 0	No		X			

CHAIN OF CUSTODY

ALS COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
046	0902_MW065_220524	Extra volume	24/05/2022 02:55 PM	Water	ALS: 6 Non ALS: 0	No		X			Extra volume
047	0902_MW066_220524		24/05/2022 03:20 PM	Water	ALS: 3 Non ALS: 0	No		X			
048	0902_MW067_220526		26/05/2022 04:42 PM	Water	ALS: 3 Non ALS: 0	No		X			
049	0902_MW068_220526		26/05/2022 07:59 PM	Water	ALS: 3 Non ALS: 0	No		X			
050	0902_MW069_220527		27/05/2022 07:55 AM	Water	ALS: 3 Non ALS: 0	No		X			
051	0902_MW070_220526		26/05/2022 09:29 AM	Water	ALS: 3 Non ALS: 0	No		X			
052	0902_MW071_220526		26/05/2022 09:37 AM	Water	ALS: 3 Non ALS: 0	No		X			
053	0902_MW072_220524		24/05/2022 03:40 PM	Water	ALS: 3 Non ALS: 0	No		X			
054	0902_MW073_220524		24/05/2022 01:11 PM	Water	ALS: 3 Non ALS: 0	No		X			

CHAIN OF CUSTODY

(ALS) COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
055	0902_MW074_220524		24/05/2022 01:20 PM	Water	ALS: 3 Non ALS: 0	No		X			
056	0902_MW075_220530		30/05/2022 12:23 PM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	
057	0902_MW076_220531		31/05/2022 01:31 PM	Water	ALS: 3 Non ALS: 0	No		X			
058	0902_MW077_220531		31/05/2022 01:48 PM	Water	ALS: 3 Non ALS: 0	No		X			
059	0902_MW078_220531		31/05/2022 11:50 AM	Water	ALS: 3 Non ALS: 0	No		X			
060	0902_MW079_220531		31/05/2022 12:15 PM	Water	ALS: 3 Non ALS: 0	No		X			
061	0902_MW081_220530		30/05/2022 12:49 PM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	
062	0902_MW082_220530		30/05/2022 01:23 PM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	
063	0902_MW091_220530		30/05/2022 04:14 PM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	

CHAIN OF CUSTODY

ALS COC#: 37829 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
064	0902_MW092_220531		31/05/2022 07:17 AM	Water	ALS: 3 Non ALS: 0	No		X			
065	0902_MW097_220530		30/05/2022 03:40 PM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	
066	0902_MW098_220530		30/05/2022 03:01 PM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	
067	0902_MW106_220531		31/05/2022 12:30 PM	Water	ALS: 3 Non ALS: 0	No		X			
068	0902_MW107D_220524		24/05/2022 10:42 AM	Water	ALS: 3 Non ALS: 0	No		X			
069	0902_MW107I_220524		24/05/2022 10:29 AM	Water	ALS: 3 Non ALS: 0	No		X			
070	0902_MW108_220526		26/05/2022 08:50 AM	Water	ALS: 3 Non ALS: 0	No		X			
071	0902_MW109_220527		27/05/2022 09:55 AM	Water	ALS: 3 Non ALS: 0	No		X			
072	0902_MW110_220527		27/05/2022 10:58 AM	Water	ALS: 3 Non ALS: 0	No		X			

CHAIN OF CUSTODY

(ALS) *COC#:* 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
073	0902_MW111_220526		26/05/2022 10:56 AM	Water	ALS: 3 Non ALS: 0	No		X			
074	0902_MW112_220526		26/05/2022 11:27 AM	Water	ALS: 3 Non ALS: 0	No		X			
075	0902_MW113_220526		26/05/2022 12:59 PM	Water	ALS: 3 Non ALS: 0	No		X			
076	0902_MW114_220526		26/05/2022 01:50 PM	Water	ALS: 3 Non ALS: 0	No		X			
077	0902_SD001_220524		24/05/2022 11:56 AM	Soil	ALS: 1 Non ALS: 0	No	X				
078	0902_SD002_220527		27/05/2022 10:59 AM	Soil	ALS: 1 Non ALS: 0	No	X				
079	0902_SD003_220527		27/05/2022 09:44 AM	Soil	ALS: 1 Non ALS: 0	No	X				
080	0902_SD005_220526		26/05/2022 12:09 PM	Soil	ALS: 1 Non ALS: 0	No	X				
081	0902_SD007_220526		26/05/2022 01:21 PM	Soil	ALS: 1 Non ALS: 0	No	X				

CHAIN OF CUSTODY

ALS COC#: 37829 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Andrew Spoor QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
082	0902_SD008_220526		26/05/2022 02:17 PM	Soil	ALS: 1 Non ALS: 0	No	X				
083	0902_SD009_220526		26/05/2022 03:22 PM	Soil	ALS: 1 Non ALS: 0	No	X				
084	0902_SD011_220527		27/05/2022 12:40 PM	Soil	ALS: 1 Non ALS: 0	No	X				
085	0902_SD013_220527		27/05/2022 01:09 PM	Soil	ALS: 1 Non ALS: 0	No	X				
086	0902_SD014_220526		26/05/2022 10:33 AM	Soil	ALS: 1 Non ALS: 0	No	X				
087	0902_SD015_220530		30/05/2022 03:17 PM	Soil	ALS: 1 Non ALS: 0	No	X				
088	0902_SD016_220530		30/05/2022 03:52 PM	Soil	ALS: 1 Non ALS: 0	No	X				
089	0902_SD018_220531		31/05/2022 09:36 AM	Soil	ALS: 1 Non ALS: 0	No	X				
090	0902_SD019_220530		31/05/2022 09:10 AM	Soil	ALS: 1 Non ALS: 0	No	X				

CHAIN OF CUSTODY

(ALS) COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
091	0902_SD020_220531		31/05/2022 08:37 AM	Soil	ALS: 1 Non ALS: 0	No	X				
092	0902_SD022_220530		30/05/2022 01:04 PM	Soil	ALS: 1 Non ALS: 0	No	X				
093	0902_SD023_220531		31/05/2022 08:06 AM	Soil	ALS: 1 Non ALS: 0	No	X				
094	0902_SD024_220531		31/05/2022 11:17 AM	Soil	ALS: 1 Non ALS: 0	No	X				
095	0902_SD030_220531		31/05/2022 10:13 AM	Soil	ALS: 1 Non ALS: 0	No	X				
096	0902_SD035_220530		30/05/2022 02:19 PM	Soil	ALS: 1 Non ALS: 0	No	X				
097	0902_SW002_220527		27/05/2022 09:14 AM	Water	ALS: 3 Non ALS: 0	No		X			
098	0902_SW003_220530		30/05/2022 11:32 AM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	
099	0902_SW005_220526	Extra volume	26/05/2022 12:05 PM	Water	ALS: 6 Non ALS: 0	No		X			Extra volume

CHAIN OF CUSTODY

ALS COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

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RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
100	0902_SW007_220526		26/05/2022 01:19 PM	Water	ALS: 3 Non ALS: 0	No		X			
101	0902_SW011_220527		27/05/2022 12:41 PM	Water	ALS: 3 Non ALS: 0	No		X			
102	0902_SW013_220527	Additional volume taken	27/05/2022 01:11 PM	Water	ALS: 6 Non ALS: 0	No		X			Extra volume taken
103	0902_SW014_220526		26/05/2022 10:32 AM	Water	ALS: 3 Non ALS: 0	No		X			
104	0902_SW015_220530		30/05/2022 03:18 PM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	
105	0902_SW016_220530		30/05/2022 03:50 PM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	
106	0902_SW018_220531		31/05/2022 09:36 AM	Water	ALS: 3 Non ALS: 0	No		X			
107	0902_SW019_220531		31/05/2022 09:08 AM	Water	ALS: 3 Non ALS: 0	No		X			
108	0902_SW020_220531		31/05/2022 08:36 AM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	

CHAIN OF CUSTODY

(ALS) COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

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QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
109	0902_SW022_220530		30/05/2022 01:03 PM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	
110	0902_SW023_220531		27/05/2022 10:20 AM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	
111	0902_SW024_220531		31/05/2022 11:16 AM	Water	ALS: 3 Non ALS: 0	No		X			
112	0902_SW030_220531		31/05/2022 10:14 AM	Water	ALS: 3 Non ALS: 0	No		X			
113	0902_SW035_220530		30/05/2022 02:18 PM	Water	ALS: 6 Non ALS: 0	No		X	X	please at NT01 and NT02	
114	0902_SW037_220527		27/05/2022 10:10 AM	Water	ALS: 3 Non ALS: 0	No		X			
115	0902_QC300_220524		26/05/2022 07:54 PM	Water	ALS: 3 Non ALS: 0	No		X			
116	0902_QC301_220525		26/05/2022 07:54 PM	Water	ALS: 3 Non ALS: 0	No		X			
117	0902_QC302_220526		26/05/2022 07:56 PM	Water	ALS: 6 Non ALS: 0	No		X			

CHAIN OF CUSTODY

ALS COC#: 37829 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
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CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

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TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
118	0902_QC303_220527		27/05/2022 02:57 PM	Water	ALS: 3 Non ALS: 0	No		X			
119	0902_QC304_220530		31/05/2022 07:26 AM	Water	ALS: 6 Non ALS: 0	No		X	X		
120	0902_QC100_220524		24/05/2022 10:07 AM	Water	ALS: 3 Non ALS: 0	No		X			
121	0902_QC101_220524		24/05/2022 03:23 PM	Soil	ALS: 1 Non ALS: 0	No	X				
122	0902_QC102_220524		24/05/2022 03:21 PM	Water	ALS: 3 Non ALS: 0	No		X			
123	0902_QC103_220525		25/05/2022 02:29 PM	Water	ALS: 3 Non ALS: 0	No		X			
124	0902_QC104_220526		26/05/2022 12:09 PM	Soil	ALS: 1 Non ALS: 0	No	X				
125	0902_QC105_220526		26/05/2022 01:20 PM	Water	ALS: 3 Non ALS: 0	No		X			
126	0902_QC106_220526		26/05/2022 01:57 PM	Water	ALS: 3 Non ALS: 0	No		X			

CHAIN OF CUSTODY

ALS COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

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SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
127	0902_QC107_220527		27/05/2022 07:56 AM	Water	ALS: 3 Non ALS: 0	No		X			
128	0902_QC108_220527		27/05/2022 02:53 PM	Water	ALS: 3 Non ALS: 0	No		X			
129	0902_QC109_220530		30/05/2022 11:35 AM	Water	ALS: 6 Non ALS: 0	No		X	X	PLEASE ADD NT-04	
130	0902_QC110_220530		30/05/2022 03:17 PM	Soil	ALS: 1 Non ALS: 0	No	X				
131	0902_QC111_220531		31/05/2022 09:09 AM	Water	ALS: 3 Non ALS: 0	No		X			
132	0902_QC112_220531		31/05/2022 10:15 AM	Water	ALS: 3 Non ALS: 0	No		X			
133	0902_QC113_220531		31/05/2022 12:14 PM	Water	ALS: 3 Non ALS: 0	No		X			
134	0902_QC114_220531		31/05/2022 01:31 PM	Water	ALS: 3 Non ALS: 0	No		X			
135	0902_QC115_220531		31/05/2022 02:36 PM	Water	ALS: 3 Non ALS: 0	No		X			

CHAIN OF CUSTODY

(ALS) COC#: 37829 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	Water Samples WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
136	0902_SW001_220524		24/05/2022 11:52 AM	Water	ALS: 3 Non ALS: 0	No		X			
137	0902_QC305_220531		31/05/2022 07:27 AM	Water	ALS: 3 Non ALS: 0	No		X			

CHAIN OF CUSTODY

ALS COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW002_220526	HDPE (no PTFE)	20 mL	00350821017039	Grey	No	
001	0902_MW002_220526	HDPE (no PTFE)	20 mL	00350821017185	Grey	No	
001	0902_MW002_220526	HDPE (no PTFE)	20 mL	00350821041459	Grey	No	
002	0902_MW004_220526	HDPE (no PTFE)	20 mL	00350821041492	Grey	No	
002	0902_MW004_220526	HDPE (no PTFE)	20 mL	00350821017122	Grey	No	
002	0902_MW004_220526	HDPE (no PTFE)	20 mL	00350821041437	Grey	No	
003	0902_MW005_220526	HDPE (no PTFE)	20 mL	00350821017286	Grey	No	
003	0902_MW005_220526	HDPE (no PTFE)	20 mL	00350821017223	Grey	No	
003	0902_MW005_220526	HDPE (no PTFE)	20 mL	00350821017371	Grey	No	
004	0902_MW007_220525	HDPE (no PTFE)	20 mL	00350821017312	Grey	No	
004	0902_MW007_220525	HDPE (no PTFE)	20 mL	00350821017206	Grey	No	
004	0902_MW007_220525	HDPE (no PTFE)	20 mL	00350821017309	Grey	No	
005	0902_MW008_220525	HDPE (no PTFE)	20 mL	00350821041413	Grey	No	
005	0902_MW008_220525	HDPE (no PTFE)	20 mL	00350821041477	Grey	No	
005	0902_MW008_220525	HDPE (no PTFE)	20 mL	00350821017352	Grey	No	
006	0902_MW012_220527	HDPE (no PTFE)	20 mL	00350821041530	Grey	No	
006	0902_MW012_220527	HDPE (no PTFE)	20 mL	00350821041389	Grey	No	
006	0902_MW012_220527	HDPE (no PTFE)	20 mL	00350821017045	Grey	No	
007	0902_MW013_220527	HDPE (no PTFE)	20 mL	00350821017364	Grey	No	
007	0902_MW013_220527	HDPE (no PTFE)	20 mL	00350821041455	Grey	No	
007	0902_MW013_220527	HDPE (no PTFE)	20 mL	00350821016991	Grey	No	
008	0902_MW014_220527	HDPE (no PTFE)	20 mL	00350821017102	Grey	No	
008	0902_MW014_220527	HDPE (no PTFE)	20 mL	00350821017250	Grey	No	
008	0902_MW014_220527	HDPE (no PTFE)	20 mL	00350821041431	Grey	No	
009	0902_MW015_220527	HDPE (no PTFE)	20 mL	00350821041479	Grey	No	
009	0902_MW015_220527	HDPE (no PTFE)	20 mL	00350821017315	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

009	0902_MW015_220527	HDPE (no PTFE)	20 mL	00350821041502	Grey	No	
009	0902_MW015_220527	HDPE (no PTFE)	20 mL	00350821016999	Grey	No	
009	0902_MW015_220527	HDPE (no PTFE)	20 mL	00350821016971	Grey	No	
009	0902_MW015_220527	HDPE (no PTFE)	20 mL	00350821017095	Grey	No	
010	0902_MW016_220526	HDPE (no PTFE)	20 mL	00350821017161	Grey	No	
010	0902_MW016_220526	HDPE (no PTFE)	20 mL	00350821017311	Grey	No	
010	0902_MW016_220526	HDPE (no PTFE)	20 mL	00350821017294	Grey	No	
011	0902_MW017_220527	HDPE (no PTFE)	20 mL	00350821017354	Grey	No	
011	0902_MW017_220527	HDPE (no PTFE)	20 mL	00350821017063	Grey	No	
011	0902_MW017_220527	HDPE (no PTFE)	20 mL	00350821017020	Grey	No	
012	0902_MW020_220527	HDPE (no PTFE)	20 mL	00350821041420	Grey	No	
012	0902_MW020_220527	HDPE (no PTFE)	20 mL	00350821017140	Grey	No	
012	0902_MW020_220527	HDPE (no PTFE)	20 mL	00350821017101	Grey	No	
013	0902_MW021_220527	HDPE (no PTFE)	20 mL	00350821017381	Grey	No	
013	0902_MW021_220527	HDPE (no PTFE)	20 mL	00350821041505	Grey	No	
013	0902_MW021_220527	HDPE (no PTFE)	20 mL	00350821041561	Grey	No	
014	0902_MW022_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038488	Red	Yes	
014	0902_MW022_220530	Clear Plastic Bottle - Natural	500 mL	00070621059953	Green	No	
014	0902_MW022_220530	HDPE (no PTFE)	20 mL	00350821018995	Grey	No	
014	0902_MW022_220530	HDPE (no PTFE)	20 mL	00350821018956	Grey	No	
014	0902_MW022_220530	HDPE (no PTFE)	20 mL	00350821018853	Grey	No	
014	0902_MW022_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121052525	Purple	No	
015	0902_MW023_220527	HDPE (no PTFE)	20 mL	00350821041448	Grey	No	
015	0902_MW023_220527	HDPE (no PTFE)	20 mL	00350821016973	Grey	No	
015	0902_MW023_220527	HDPE (no PTFE)	20 mL	00350821041446	Grey	No	
016	0902_MW024_220525	HDPE (no PTFE)	20 mL	00350821041401	Grey	No	
016	0902_MW024_220525	HDPE (no PTFE)	20 mL	00350821017142	Grey	No	

CHAIN OF CUSTODY

(ALS) *COC#:* 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

016	0902_MW024_220525	HDPE (no PTFE)	20 mL	00350821017116	Grey	No	
017	0902_MW025_220524	HDPE (no PTFE)	20 mL	00350821018984	Grey	No	
017	0902_MW025_220524	HDPE (no PTFE)	20 mL	00350821018952	Grey	No	
017	0902_MW025_220524	HDPE (no PTFE)	20 mL	00350821018867	Grey	No	
018	0902_MW026_220524	HDPE (no PTFE)	20 mL	00350821018968	Grey	No	
018	0902_MW026_220524	HDPE (no PTFE)	20 mL	00350821018978	Grey	No	
018	0902_MW026_220524	HDPE (no PTFE)	20 mL	00350821018858	Grey	No	
019	0902_MW027_220525	HDPE (no PTFE)	20 mL	00350821017231	Grey	No	
019	0902_MW027_220525	HDPE (no PTFE)	20 mL	00350821017365	Grey	No	
019	0902_MW027_220525	HDPE (no PTFE)	20 mL	00350821041396	Grey	No	
020	0902_MW028_220525	HDPE (no PTFE)	20 mL	00350821017340	Grey	No	
020	0902_MW028_220525	HDPE (no PTFE)	20 mL	00350821041532	Grey	No	
020	0902_MW028_220525	HDPE (no PTFE)	20 mL	00350821017229	Grey	No	
020	0902_MW028_220525	HDPE (no PTFE)	20 mL	00350821017055	Grey	No	
020	0902_MW028_220525	HDPE (no PTFE)	20 mL	00350821017021	Grey	No	
020	0902_MW028_220525	HDPE (no PTFE)	20 mL	00350821041456	Grey	No	
021	0902_MW030_220526	HDPE (no PTFE)	20 mL	00350821017375	Grey	No	
021	0902_MW030_220526	HDPE (no PTFE)	20 mL	00350821017124	Grey	No	
021	0902_MW030_220526	HDPE (no PTFE)	20 mL	00350821016987	Grey	No	
022	0902_MW032_220524	HDPE (no PTFE)	20 mL	00350821018924	Grey	No	
022	0902_MW032_220524	HDPE (no PTFE)	20 mL	00350821018948	Grey	No	
022	0902_MW032_220524	HDPE (no PTFE)	20 mL	00350821019084	Grey	No	
023	0902_MW033_220524	HDPE (no PTFE)	20 mL	00350821018945	Grey	No	
023	0902_MW033_220524	HDPE (no PTFE)	20 mL	00350821019028	Grey	No	
023	0902_MW033_220524	HDPE (no PTFE)	20 mL	00350821018816	Grey	No	
024	0902_MW034_220524	HDPE (no PTFE)	20 mL	00350821018826	Grey	No	
024	0902_MW034_220524	HDPE (no PTFE)	20 mL	00350821018899	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 37829 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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024	0902_MW034_220524	HDPE (no PTFE)	20 mL	00350821018894	Grey	No	
025	0902_MW036_220527	HDPE (no PTFE)	20 mL	00350821041507	Grey	No	
025	0902_MW036_220527	HDPE (no PTFE)	20 mL	00350821041567	Grey	No	
025	0902_MW036_220527	HDPE (no PTFE)	20 mL	00350821016970	Grey	No	
026	0902_MW040_220525	HDPE (no PTFE)	20 mL	00350821041526	Grey	No	
026	0902_MW040_220525	HDPE (no PTFE)	20 mL	00350821017199	Grey	No	
026	0902_MW040_220525	HDPE (no PTFE)	20 mL	00350821041493	Grey	No	
027	0902_MW041_220525	HDPE (no PTFE)	20 mL	00350821017016	Grey	No	
027	0902_MW041_220525	HDPE (no PTFE)	20 mL	00350821017077	Grey	No	
027	0902_MW041_220525	HDPE (no PTFE)	20 mL	00350821041523	Grey	No	
028	0902_MW042_220525	HDPE (no PTFE)	20 mL	00350821017133	Grey	No	
028	0902_MW042_220525	HDPE (no PTFE)	20 mL	00350821017328	Grey	No	
028	0902_MW042_220525	HDPE (no PTFE)	20 mL	00350821017244	Grey	No	
029	0902_MW043_220525	HDPE (no PTFE)	20 mL	00350821017372	Grey	No	
029	0902_MW043_220525	HDPE (no PTFE)	20 mL	00350821016996	Grey	No	
029	0902_MW043_220525	HDPE (no PTFE)	20 mL	00350821017190	Grey	No	
029	0902_MW043_220525	HDPE (no PTFE)	20 mL	00350821017152	Grey	No	
029	0902_MW043_220525	HDPE (no PTFE)	20 mL	00350821017006	Grey	No	
029	0902_MW043_220525	HDPE (no PTFE)	20 mL	00350821017255	Grey	No	
030	0902_MW046_220524	HDPE (no PTFE)	20 mL	00350821018854	Grey	No	
030	0902_MW046_220524	HDPE (no PTFE)	20 mL	00350821019093	Grey	No	
030	0902_MW046_220524	HDPE (no PTFE)	20 mL	00350821018890	Grey	No	
031	0902_MW047_220525	HDPE (no PTFE)	20 mL	00350821041474	Grey	No	
031	0902_MW047_220525	HDPE (no PTFE)	20 mL	00350821017332	Grey	No	
031	0902_MW047_220525	HDPE (no PTFE)	20 mL	00350821017211	Grey	No	
032	0902_MW048_220525	HDPE (no PTFE)	20 mL	00350821017203	Grey	No	
032	0902_MW048_220525	HDPE (no PTFE)	20 mL	00350821041422	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 37829 ALS Laboratory: ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

032	0902_MW048_220525	HDPE (no PTFE)	20 mL	00350821017052	Grey	No	
033	0902_MW050_220525	HDPE (no PTFE)	20 mL	00350821041486	Grey	No	
033	0902_MW050_220525	HDPE (no PTFE)	20 mL	00350821017132	Grey	No	
033	0902_MW050_220525	HDPE (no PTFE)	20 mL	00350821041473	Grey	No	
034	0902_MW051_220525	HDPE (no PTFE)	20 mL	00350821017266	Grey	No	
034	0902_MW051_220525	HDPE (no PTFE)	20 mL	00350821017083	Grey	No	
034	0902_MW051_220525	HDPE (no PTFE)	20 mL	00350821041533	Grey	No	
035	0902_MW052_220525	HDPE (no PTFE)	20 mL	00350821041529	Grey	No	
035	0902_MW052_220525	HDPE (no PTFE)	20 mL	00350821016982	Grey	No	
035	0902_MW052_220525	HDPE (no PTFE)	20 mL	00350821017383	Grey	No	
036	0902_MW053_220526	HDPE (no PTFE)	20 mL	00350821017269	Grey	No	
036	0902_MW053_220526	HDPE (no PTFE)	20 mL	00350821017205	Grey	No	
036	0902_MW053_220526	HDPE (no PTFE)	20 mL	00350821017325	Grey	No	
037	0902_MW054_220524	HDPE (no PTFE)	20 mL	00350821019034	Grey	No	
037	0902_MW054_220524	HDPE (no PTFE)	20 mL	00350821018958	Grey	No	
037	0902_MW054_220524	HDPE (no PTFE)	20 mL	00350821018994	Grey	No	
038	0902_MW056_220525	HDPE (no PTFE)	20 mL	00350821018902	Grey	No	
038	0902_MW056_220525	HDPE (no PTFE)	20 mL	00350821018841	Grey	No	
038	0902_MW056_220525	HDPE (no PTFE)	20 mL	00350821018843	Grey	No	
039	0902_MW057_220531	HDPE (no PTFE)	20 mL	00350821018842	Grey	No	
039	0902_MW057_220531	HDPE (no PTFE)	20 mL	00350821018877	Grey	No	
039	0902_MW057_220531	HDPE (no PTFE)	20 mL	00350821018937	Grey	No	
040	0902_MW059_220531	HDPE (no PTFE)	20 mL	00350821018887	Grey	No	
040	0902_MW059_220531	HDPE (no PTFE)	20 mL	00350821019077	Grey	No	
040	0902_MW059_220531	HDPE (no PTFE)	20 mL	00350821018990	Grey	No	
041	0902_MW060_220525	HDPE (no PTFE)	20 mL	00350821018970	Grey	No	
041	0902_MW060_220525	HDPE (no PTFE)	20 mL	00350821019089	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 37829 ALS Laboratory: ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

041	0902_MW060_220525	HDPE (no PTFE)	20 mL	00350821019056	Grey	No	
042	0902_MW061_220525	HDPE (no PTFE)	20 mL	00350821018989	Grey	No	
042	0902_MW061_220525	HDPE (no PTFE)	20 mL	00350821018919	Grey	No	
042	0902_MW061_220525	HDPE (no PTFE)	20 mL	00350821019047	Grey	No	
043	0902_MW062_220527	HDPE (no PTFE)	20 mL	00350821041512	Grey	No	
043	0902_MW062_220527	HDPE (no PTFE)	20 mL	00350821017159	Grey	No	
043	0902_MW062_220527	HDPE (no PTFE)	20 mL	00350821017263	Grey	No	
044	0902_MW063_220527	HDPE (no PTFE)	20 mL	00350821017147	Grey	No	
044	0902_MW063_220527	HDPE (no PTFE)	20 mL	00350821017070	Grey	No	
044	0902_MW063_220527	HDPE (no PTFE)	20 mL	00350821041498	Grey	No	
045	0902_MW064_220524	HDPE (no PTFE)	20 mL	00350821018932	Grey	No	
045	0902_MW064_220524	HDPE (no PTFE)	20 mL	00350821018811	Grey	No	
045	0902_MW064_220524	HDPE (no PTFE)	20 mL	00350821018892	Grey	No	
046	0902_MW065_220524	HDPE (no PTFE)	20 mL	00350821018798	Grey	No	
046	0902_MW065_220524	HDPE (no PTFE)	20 mL	00350821018956	Grey	No	
046	0902_MW065_220524	HDPE (no PTFE)	20 mL	00350821018905	Grey	No	
046	0902_MW065_220524	HDPE (no PTFE)	20 mL	00350821018844	Grey	No	
046	0902_MW065_220524	HDPE (no PTFE)	20 mL	00350821018817	Grey	No	
046	0902_MW065_220524	HDPE (no PTFE)	20 mL	00350821018868	Grey	No	
047	0902_MW066_220524	HDPE (no PTFE)	20 mL	00350821018883	Grey	No	
047	0902_MW066_220524	HDPE (no PTFE)	20 mL	00350821018975	Grey	No	
047	0902_MW066_220524	HDPE (no PTFE)	20 mL	00350821018927	Grey	No	
048	0902_MW067_220526	HDPE (no PTFE)	20 mL	00350821041490	Grey	No	
048	0902_MW067_220526	HDPE (no PTFE)	20 mL	00350821016998	Grey	No	
048	0902_MW067_220526	HDPE (no PTFE)	20 mL	00350821041390	Grey	No	
049	0902_MW068_220526	HDPE (no PTFE)	20 mL	00350821017027	Grey	No	
049	0902_MW068_220526	HDPE (no PTFE)	20 mL	00350821017228	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free Ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

049	0902_MW068_220526	HDPE (no PTFE)	20 mL	00350821041462	Grey	No	
050	0902_MW069_220527	HDPE (no PTFE)	20 mL	00350821017025	Grey	No	
050	0902_MW069_220527	HDPE (no PTFE)	20 mL	00350821041399	Grey	No	
050	0902_MW069_220527	HDPE (no PTFE)	20 mL	00350821017261	Grey	No	
051	0902_MW070_220526	HDPE (no PTFE)	20 mL	00350821041461	Grey	No	
051	0902_MW070_220526	HDPE (no PTFE)	20 mL	00350821017044	Grey	No	
051	0902_MW070_220526	HDPE (no PTFE)	20 mL	00350821017313	Grey	No	
052	0902_MW071_220526	HDPE (no PTFE)	20 mL	00350821017305	Grey	No	
052	0902_MW071_220526	HDPE (no PTFE)	20 mL	00350821017087	Grey	No	
052	0902_MW071_220526	HDPE (no PTFE)	20 mL	00350821017131	Grey	No	
053	0902_MW072_220524	HDPE (no PTFE)	20 mL	00350821018977	Grey	No	
053	0902_MW072_220524	HDPE (no PTFE)	20 mL	00350821019071	Grey	No	
053	0902_MW072_220524	HDPE (no PTFE)	20 mL	00350821018946	Grey	No	
054	0902_MW073_220524	HDPE (no PTFE)	20 mL	00350821018814	Grey	No	
054	0902_MW073_220524	HDPE (no PTFE)	20 mL	00350821018839	Grey	No	
054	0902_MW073_220524	HDPE (no PTFE)	20 mL	00350821018847	Grey	No	
055	0902_MW074_220524	HDPE (no PTFE)	20 mL	00350821019082	Grey	No	
055	0902_MW074_220524	HDPE (no PTFE)	20 mL	00350821019018	Grey	No	
055	0902_MW074_220524	HDPE (no PTFE)	20 mL	00350821018837	Grey	No	
056	0902_MW075_220530	Clear Plastic Bottle - Natural	500 mL	00070621085556	Green	No	
056	0902_MW075_220530	HDPE (no PTFE)	20 mL	00350821018961	Grey	No	
056	0902_MW075_220530	HDPE (no PTFE)	20 mL	00350821019058	Grey	No	
056	0902_MW075_220530	HDPE (no PTFE)	20 mL	00350821019051	Grey	No	
056	0902_MW075_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121052039	Purple	No	
056	0902_MW075_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038484	Red	Yes	
057	0902_MW076_220531	HDPE (no PTFE)	20 mL	00350821019022	Grey	No	
057	0902_MW076_220531	HDPE (no PTFE)	20 mL	00350821018963	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 37829 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

057	0902_MW076_220531	HDPE (no PTFE)	20 mL	00350821018840	Grey	No	
058	0902_MW077_220531	HDPE (no PTFE)	20 mL	00350821019005	Grey	No	
058	0902_MW077_220531	HDPE (no PTFE)	20 mL	00350821018988	Grey	No	
058	0902_MW077_220531	HDPE (no PTFE)	20 mL	00350821018831	Grey	No	
059	0902_MW078_220531	HDPE (no PTFE)	20 mL	00350821018810	Grey	No	
059	0902_MW078_220531	HDPE (no PTFE)	20 mL	00350821019001	Grey	No	
059	0902_MW078_220531	HDPE (no PTFE)	20 mL	00350821019006	Grey	No	
060	0902_MW079_220531	HDPE (no PTFE)	20 mL	00350821018991	Grey	No	
060	0902_MW079_220531	HDPE (no PTFE)	20 mL	00350821018950	Grey	No	
060	0902_MW079_220531	HDPE (no PTFE)	20 mL	00350821018973	Grey	No	
061	0902_MW081_220530	Clear Plastic Bottle - Natural	500 mL	00070621059943	Green	No	
061	0902_MW081_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121056846	Purple	No	
061	0902_MW081_220530	HDPE (no PTFE)	20 mL	00350821019027	Grey	No	
061	0902_MW081_220530	HDPE (no PTFE)	20 mL	00350821019096	Grey	No	
061	0902_MW081_220530	HDPE (no PTFE)	20 mL	00350821019037	Grey	No	
061	0902_MW081_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038487	Red	Yes	
062	0902_MW082_220530	HDPE (no PTFE)	20 mL	00350821019068	Grey	No	
062	0902_MW082_220530	HDPE (no PTFE)	20 mL	00350821018928	Grey	No	
062	0902_MW082_220530	HDPE (no PTFE)	20 mL	00350821019055	Grey	No	
062	0902_MW082_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038518	Red	Yes	
062	0902_MW082_220530	Clear Plastic Bottle - Natural	500 mL	00070621059933	Green	No	
062	0902_MW082_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121056710	Purple	No	
063	0902_MW091_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038541	Red	Yes	
063	0902_MW091_220530	Clear Plastic Bottle - Natural	500 mL	00070621085908	Green	No	
063	0902_MW091_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121056878	Purple	No	
063	0902_MW091_220530	HDPE (no PTFE)	20 mL	00350821019049	Grey	No	
063	0902_MW091_220530	HDPE (no PTFE)	20 mL	00350821019050	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 37829 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

063	0902_MW091_220530	HDPE (no PTFE)	20 mL	00350821019053	Grey	No	
064	0902_MW092_220531	HDPE (no PTFE)	20 mL	00350821019033	Grey	No	
064	0902_MW092_220531	HDPE (no PTFE)	20 mL	00350821019045	Grey	No	
064	0902_MW092_220531	HDPE (no PTFE)	20 mL	00350821019073	Grey	No	
065	0902_MW097_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038525	Red	Yes	
065	0902_MW097_220530	HDPE (no PTFE)	20 mL	00350821018800	Grey	No	
065	0902_MW097_220530	HDPE (no PTFE)	20 mL	00350821018996	Grey	No	
065	0902_MW097_220530	HDPE (no PTFE)	20 mL	00350821019004	Grey	No	
065	0902_MW097_220530	Clear Plastic Bottle - Natural	500 mL	00070621085703	Green	No	
065	0902_MW097_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121074869	Purple	No	
066	0902_MW098_220530	HDPE (no PTFE)	20 mL	00350821018901	Grey	No	
066	0902_MW098_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121074884	Purple	No	
066	0902_MW098_220530	HDPE (no PTFE)	20 mL	00350821019019	Grey	No	
066	0902_MW098_220530	HDPE (no PTFE)	20 mL	00350821019054	Grey	No	
066	0902_MW098_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038537	Red	Yes	
066	0902_MW098_220530	Clear Plastic Bottle - Natural	500 mL	00070621085559	Green	No	
067	0902_MW106_220531	HDPE (no PTFE)	20 mL	00350821018944	Grey	No	
067	0902_MW106_220531	HDPE (no PTFE)	20 mL	00350821018838	Grey	No	
067	0902_MW106_220531	HDPE (no PTFE)	20 mL	00350821018903	Grey	No	
068	0902_MW107D_220524	HDPE (no PTFE)	20 mL	00350821018871	Grey	No	
068	0902_MW107D_220524	HDPE (no PTFE)	20 mL	00350821018812	Grey	No	
068	0902_MW107D_220524	HDPE (no PTFE)	20 mL	00350821018815	Grey	No	
069	0902_MW107I_220524	HDPE (no PTFE)	20 mL	00350821018916	Grey	No	
069	0902_MW107I_220524	HDPE (no PTFE)	20 mL	00350821018825	Grey	No	
069	0902_MW107I_220524	HDPE (no PTFE)	20 mL	00350821018951	Grey	No	
070	0902_MW108_220526	HDPE (no PTFE)	20 mL	00350821017078	Grey	No	
070	0902_MW108_220526	HDPE (no PTFE)	20 mL	00350821041565	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 37829 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

070	0902_MW108_220526	HDPE (no PTFE)	20 mL	00350821016997	Grey	No	
071	0902_MW109_220527	HDPE (no PTFE)	20 mL	00350821041412	Grey	No	
071	0902_MW109_220527	HDPE (no PTFE)	20 mL	00350821017256	Grey	No	
071	0902_MW109_220527	HDPE (no PTFE)	20 mL	00350821041539	Grey	No	
072	0902_MW110_220527	HDPE (no PTFE)	20 mL	00350821017330	Grey	No	
072	0902_MW110_220527	HDPE (no PTFE)	20 mL	00350821017062	Grey	No	
072	0902_MW110_220527	HDPE (no PTFE)	20 mL	00350821017348	Grey	No	
073	0902_MW111_220526	HDPE (no PTFE)	20 mL	00350821017273	Grey	No	
073	0902_MW111_220526	HDPE (no PTFE)	20 mL	00350821041438	Grey	No	
073	0902_MW111_220526	HDPE (no PTFE)	20 mL	00350821017010	Grey	No	
074	0902_MW112_220526	HDPE (no PTFE)	20 mL	00350821041403	Grey	No	
074	0902_MW112_220526	HDPE (no PTFE)	20 mL	00350821017054	Grey	No	
074	0902_MW112_220526	HDPE (no PTFE)	20 mL	00350821017363	Grey	No	
075	0902_MW113_220526	HDPE (no PTFE)	20 mL	00350821017298	Grey	No	
075	0902_MW113_220526	HDPE (no PTFE)	20 mL	00350821041392	Grey	No	
075	0902_MW113_220526	HDPE (no PTFE)	20 mL	00350821041472	Grey	No	
076	0902_MW114_220526	HDPE (no PTFE)	20 mL	00350821017239	Grey	No	
076	0902_MW114_220526	HDPE (no PTFE)	20 mL	00350821017051	Grey	No	
076	0902_MW114_220526	HDPE (no PTFE)	20 mL	00350821041503	Grey	No	
077	0902_SD001_220524	HDPE Soil Jar	200 mL	00620322041152	Grey	No	
078	0902_SD002_220527	HDPE Soil Jar	200 mL	00620322041145	Grey	No	
079	0902_SD003_220527	HDPE Soil Jar	200 mL	00620322041103	Grey	No	
080	0902_SD005_220526	HDPE Soil Jar	200 mL	00620322041102	Grey	No	
081	0902_SD007_220526	HDPE Soil Jar	200 mL	00620322041150	Grey	No	
082	0902_SD008_220526	HDPE Soil Jar	200 mL	00620322041127	Grey	No	
083	0902_SD009_220526	HDPE Soil Jar	200 mL	00620322041089	Grey	No	
084	0902_SD011_220527	HDPE Soil Jar	200 mL	00620322041142	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

085	0902_SD013_220527	HDPE Soil Jar	200 mL	00620322041190	Grey	No	
086	0902_SD014_220526	HDPE Soil Jar	200 mL	00620322041178	Grey	No	
087	0902_SD015_220530	HDPE Soil Jar	200 mL	00620322041172	Grey	No	
088	0902_SD016_220530	HDPE Soil Jar	200 mL	00620322041121	Grey	No	
089	0902_SD018_220531	HDPE Soil Jar	200 mL	00620322041131	Grey	No	
090	0902_SD019_220530	HDPE Soil Jar	200 mL	00620322041175	Grey	No	
091	0902_SD020_220531	HDPE Soil Jar	200 mL	00620322041227	Grey	No	
092	0902_SD022_220530	HDPE Soil Jar	200 mL	00620322041138	Grey	No	
093	0902_SD023_220531	HDPE Soil Jar	200 mL	00620322041159	Grey	No	
094	0902_SD024_220531	HDPE Soil Jar	200 mL	00620322041213	Grey	No	
095	0902_SD030_220531	HDPE Soil Jar	200 mL	00620322041112	Grey	No	
096	0902_SD035_220530	HDPE Soil Jar	200 mL	00620322041193	Grey	No	
097	0902_SW002_220527	HDPE (no PTFE)	20 mL	00350821041393	Grey	No	
097	0902_SW002_220527	HDPE (no PTFE)	20 mL	00350821017384	Grey	No	
097	0902_SW002_220527	HDPE (no PTFE)	20 mL	00350821017318	Grey	No	
098	0902_SW003_220530	HDPE (no PTFE)	20 mL	00350821019072	Grey	No	
098	0902_SW003_220530	HDPE (no PTFE)	20 mL	00350821019039	Grey	No	
098	0902_SW003_220530	HDPE (no PTFE)	20 mL	00350821018929	Grey	No	
098	0902_SW003_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121057179	Purple	No	
098	0902_SW003_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038498	Red	Yes	
098	0902_SW003_220530	Clear Plastic Bottle - Natural	500 mL	00070621059921	Green	No	
099	0902_SW005_220526	HDPE (no PTFE)	20 mL	00350821041551	Grey	No	
099	0902_SW005_220526	HDPE (no PTFE)	20 mL	00350821017069	Grey	No	
099	0902_SW005_220526	HDPE (no PTFE)	20 mL	00350821017329	Grey	No	
099	0902_SW005_220526	HDPE (no PTFE)	20 mL	00350821017151	Grey	No	
099	0902_SW005_220526	HDPE (no PTFE)	20 mL	00350821017008	Grey	No	
099	0902_SW005_220526	HDPE (no PTFE)	20 mL	00350821017015	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

100	0902_SW007_220526	HDPE (no PTFE)	20 mL	00350821017288	Grey	No	
100	0902_SW007_220526	HDPE (no PTFE)	20 mL	00350821017279	Grey	No	
100	0902_SW007_220526	HDPE (no PTFE)	20 mL	00350821017238	Grey	No	
101	0902_SW011_220527	HDPE (no PTFE)	20 mL	00350821017167	Grey	No	
101	0902_SW011_220527	HDPE (no PTFE)	20 mL	00350821041541	Grey	No	
101	0902_SW011_220527	HDPE (no PTFE)	20 mL	00350821041394	Grey	No	
102	0902_SW013_220527	HDPE (no PTFE)	20 mL	00350821017321	Grey	No	
102	0902_SW013_220527	HDPE (no PTFE)	20 mL	00350821017358	Grey	No	
102	0902_SW013_220527	HDPE (no PTFE)	20 mL	00350821017032	Grey	No	
102	0902_SW013_220527	HDPE (no PTFE)	20 mL	00350821017170	Grey	No	
102	0902_SW013_220527	HDPE (no PTFE)	20 mL	00350821017079	Grey	No	
102	0902_SW013_220527	HDPE (no PTFE)	20 mL	00350821041411	Grey	No	
103	0902_SW014_220526	HDPE (no PTFE)	20 mL	00350821016995	Grey	No	
103	0902_SW014_220526	HDPE (no PTFE)	20 mL	00350821017360	Grey	No	
103	0902_SW014_220526	HDPE (no PTFE)	20 mL	00350821041527	Grey	No	
104	0902_SW015_220530	Clear Plastic Bottle - Natural	500 mL	00070621085691	Green	No	
104	0902_SW015_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038540	Red	Yes	
104	0902_SW015_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121074883	Purple	No	
104	0902_SW015_220530	HDPE (no PTFE)	20 mL	00350821018802	Grey	No	
104	0902_SW015_220530	HDPE (no PTFE)	20 mL	00350821018976	Grey	No	
104	0902_SW015_220530	HDPE (no PTFE)	20 mL	00350821019097	Grey	No	
105	0902_SW016_220530	HDPE (no PTFE)	20 mL	00350821018938	Grey	No	
105	0902_SW016_220530	HDPE (no PTFE)	20 mL	00350821018823	Grey	No	
105	0902_SW016_220530	HDPE (no PTFE)	20 mL	00350821018891	Grey	No	
105	0902_SW016_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121057006	Purple	No	
105	0902_SW016_220530	Clear Plastic Bottle - Natural	500 mL	00070621059952	Green	No	
105	0902_SW016_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038538	Red	Yes	

CHAIN OF CUSTODY

ALS COC#: 37829 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

106	0902_SW018_220531	HDPE (no PTFE)	20 mL	00350821018959	Grey	No	
106	0902_SW018_220531	HDPE (no PTFE)	20 mL	00350821018866	Grey	No	
106	0902_SW018_220531	HDPE (no PTFE)	20 mL	00350821019076	Grey	No	
107	0902_SW019_220531	HDPE (no PTFE)	20 mL	00350821019026	Grey	No	
107	0902_SW019_220531	HDPE (no PTFE)	20 mL	00350821018936	Grey	No	
107	0902_SW019_220531	HDPE (no PTFE)	20 mL	00350821019046	Grey	No	
108	0902_SW020_220531	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121057029	Purple	No	
108	0902_SW020_220531	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038546	Red	Yes	
108	0902_SW020_220531	HDPE (no PTFE)	20 mL	00350821018979	Grey	No	
108	0902_SW020_220531	HDPE (no PTFE)	20 mL	00350821019025	Grey	No	
108	0902_SW020_220531	HDPE (no PTFE)	20 mL	00350821019092	Grey	No	
108	0902_SW020_220531	Clear Plastic Bottle - Natural	500 mL	00070621059951	Green	No	
109	0902_SW022_220530	Clear Plastic Bottle - Natural	500 mL	00070621085615	Green	No	
109	0902_SW022_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121057137	Purple	No	
109	0902_SW022_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038483	Red	Yes	
109	0902_SW022_220530	HDPE (no PTFE)	20 mL	00350821018980	Grey	No	
109	0902_SW022_220530	HDPE (no PTFE)	20 mL	00350821019015	Grey	No	
109	0902_SW022_220530	HDPE (no PTFE)	20 mL	00350821019061	Grey	No	
110	0902_SW023_220531	Clear Plastic Bottle - Natural	500 mL	00070621059937	Green	No	
110	0902_SW023_220531	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121074827	Purple	No	
110	0902_SW023_220531	HDPE (no PTFE)	20 mL	00350821018806	Grey	No	
110	0902_SW023_220531	HDPE (no PTFE)	20 mL	00350821018824	Grey	No	
110	0902_SW023_220531	HDPE (no PTFE)	20 mL	00350821019038	Grey	No	
110	0902_SW023_220531	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038545	Red	Yes	
111	0902_SW024_220531	HDPE (no PTFE)	20 mL	00350821018900	Grey	No	
111	0902_SW024_220531	HDPE (no PTFE)	20 mL	00350821018909	Grey	No	
111	0902_SW024_220531	HDPE (no PTFE)	20 mL	00350821019013	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

112	0902_SW030_220531	HDPE (no PTFE)	20 mL	00350821019081	Grey	No	
112	0902_SW030_220531	HDPE (no PTFE)	20 mL	00350821018921	Grey	No	
112	0902_SW030_220531	HDPE (no PTFE)	20 mL	00350821018904	Grey	No	
113	0902_SW035_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038529	Red	Yes	
113	0902_SW035_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121074851	Purple	No	
113	0902_SW035_220530	Clear Plastic Bottle - Natural	500 mL	00070621085509	Green	No	
113	0902_SW035_220530	HDPE (no PTFE)	20 mL	00350821019017	Grey	No	
113	0902_SW035_220530	HDPE (no PTFE)	20 mL	00350821019042	Grey	No	
113	0902_SW035_220530	HDPE (no PTFE)	20 mL	00350821018993	Grey	No	
114	0902_SW037_220527	HDPE (no PTFE)	20 mL	00350821017341	Grey	No	
114	0902_SW037_220527	HDPE (no PTFE)	20 mL	00350821017338	Grey	No	
114	0902_SW037_220527	HDPE (no PTFE)	20 mL	00350821017178	Grey	No	
115	0902_QC300_220524	HDPE (no PTFE)	20 mL	00350821017029	Grey	No	
115	0902_QC300_220524	HDPE (no PTFE)	20 mL	00350821017171	Grey	No	
115	0902_QC300_220524	HDPE (no PTFE)	20 mL	00350821017265	Grey	No	
116	0902_QC301_220525	HDPE (no PTFE)	20 mL	00350821017259	Grey	No	
116	0902_QC301_220525	HDPE (no PTFE)	20 mL	00350821017188	Grey	No	
116	0902_QC301_220525	HDPE (no PTFE)	20 mL	00350821017299	Grey	No	
117	0902_QC302_220526	HDPE (no PTFE)	20 mL	00350821017094	Grey	No	
117	0902_QC302_220526	HDPE (no PTFE)	20 mL	00350821017241	Grey	No	
117	0902_QC302_220526	HDPE (no PTFE)	20 mL	00350821041545	Grey	No	
117	0902_QC302_220526	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038482	Red	No	
117	0902_QC302_220526	Clear Plastic Bottle - Natural	500 mL	00070621059917	Green	No	
117	0902_QC302_220526	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121052465	Purple	No	
118	0902_QC303_220527	HDPE (no PTFE)	20 mL	00350821017165	Grey	No	
118	0902_QC303_220527	HDPE (no PTFE)	20 mL	00350821017068	Grey	No	
118	0902_QC303_220527	HDPE (no PTFE)	20 mL	00350821017234	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 37829 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

119	0902_QC304_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121074890	Purple	No	
119	0902_QC304_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038485	Red	Yes	
119	0902_QC304_220530	Clear Plastic Bottle - Natural	500 mL	00070621059920	Green	No	
119	0902_QC304_220530	HDPE (no PTFE)	20 mL	00350821018819	Grey	No	
119	0902_QC304_220530	HDPE (no PTFE)	20 mL	00350821018886	Grey	No	
119	0902_QC304_220530	HDPE (no PTFE)	20 mL	00350821018807	Grey	No	
120	0902_QC100_220524	HDPE (no PTFE)	20 mL	00350821019052	Grey	No	
120	0902_QC100_220524	HDPE (no PTFE)	20 mL	00350821019079	Grey	No	
120	0902_QC100_220524	HDPE (no PTFE)	20 mL	00350821018971	Grey	No	
121	0902_QC101_220524	HDPE Soil Jar	200 mL	00620322041160	Grey	No	
122	0902_QC102_220524	HDPE (no PTFE)	20 mL	00350821018954	Grey	No	
122	0902_QC102_220524	HDPE (no PTFE)	20 mL	00350821018809	Grey	No	
122	0902_QC102_220524	HDPE (no PTFE)	20 mL	00350821018801	Grey	No	
123	0902_QC103_220525	HDPE (no PTFE)	20 mL	00350821017357	Grey	No	
123	0902_QC103_220525	HDPE (no PTFE)	20 mL	00350821041499	Grey	No	
123	0902_QC103_220525	HDPE (no PTFE)	20 mL	00350821017145	Grey	No	
124	0902_QC104_220526	HDPE Soil Jar	200 mL	00620322041225	Grey	No	
125	0902_QC105_220526	HDPE (no PTFE)	20 mL	00350821041525	Grey	No	
125	0902_QC105_220526	HDPE (no PTFE)	20 mL	00350821017370	Grey	No	
125	0902_QC105_220526	HDPE (no PTFE)	20 mL	00350821017249	Grey	No	
126	0902_QC106_220526	HDPE (no PTFE)	20 mL	00350821017048	Grey	No	
126	0902_QC106_220526	HDPE (no PTFE)	20 mL	00350821017366	Grey	No	
126	0902_QC106_220526	HDPE (no PTFE)	20 mL	00350821017157	Grey	No	
127	0902_QC107_220527	HDPE (no PTFE)	20 mL	00350821017134	Grey	No	
127	0902_QC107_220527	HDPE (no PTFE)	20 mL	00350821041451	Grey	No	
127	0902_QC107_220527	HDPE (no PTFE)	20 mL	00350821017242	Grey	No	
128	0902_QC108_220527	HDPE (no PTFE)	20 mL	00350821041500	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 37829 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

128	0902_QC108_220527	HDPE (no PTFE)	20 mL	00350821017034	Grey	No	
128	0902_QC108_220527	HDPE (no PTFE)	20 mL	00350821017112	Grey	No	
129	0902_QC109_220530	Clear Plastic Bottle - Natural	500 mL	00070621085934	Green	No	
129	0902_QC109_220530	Clear Plastic Bottle - Sulfuric Acid	60 mL	00101121052396	Purple	No	
129	0902_QC109_220530	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122111038497	Red	Yes	
129	0902_QC109_220530	HDPE (no PTFE)	20 mL	00350821018865	Grey	No	
129	0902_QC109_220530	HDPE (no PTFE)	20 mL	00350821018930	Grey	No	
129	0902_QC109_220530	HDPE (no PTFE)	20 mL	00350821019059	Grey	No	
130	0902_QC110_220530	HDPE Soil Jar	200 mL	00620322041173	Grey	No	
131	0902_QC111_220531	HDPE (no PTFE)	20 mL	00350821018855	Grey	No	
131	0902_QC111_220531	HDPE (no PTFE)	20 mL	00350821019078	Grey	No	
131	0902_QC111_220531	HDPE (no PTFE)	20 mL	00350821018897	Grey	No	
132	0902_QC112_220531	HDPE (no PTFE)	20 mL	00350821019031	Grey	No	
132	0902_QC112_220531	HDPE (no PTFE)	20 mL	00350821018960	Grey	No	
132	0902_QC112_220531	HDPE (no PTFE)	20 mL	00350821018912	Grey	No	
133	0902_QC113_220531	HDPE (no PTFE)	20 mL	00350821019069	Grey	No	
133	0902_QC113_220531	HDPE (no PTFE)	20 mL	00350821019067	Grey	No	
133	0902_QC113_220531	HDPE (no PTFE)	20 mL	00350821019002	Grey	No	
134	0902_QC114_220531	HDPE (no PTFE)	20 mL	00350821018923	Grey	No	
134	0902_QC114_220531	HDPE (no PTFE)	20 mL	00350821018804	Grey	No	
134	0902_QC114_220531	HDPE (no PTFE)	20 mL	00350821018920	Grey	No	
135	0902_QC115_220531	HDPE (no PTFE)	20 mL	00350821018869	Grey	No	
135	0902_QC115_220531	HDPE (no PTFE)	20 mL	00350821019035	Grey	No	
135	0902_QC115_220531	HDPE (no PTFE)	20 mL	00350821019010	Grey	No	
136	0902_SW001_220524	HDPE (no PTFE)	20 mL	00350821018965	Grey	No	
136	0902_SW001_220524	HDPE (no PTFE)	20 mL	00350821019043	Grey	No	
136	0902_SW001_220524	HDPE (no PTFE)	20 mL	00350821018861	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 37829 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: NSW_0902_PFASOMP

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Andrew Spoor

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

137	0902_QC305_220531	HDPE (no PTFE)	20 mL	00350821018914	Grey	No	
137	0902_QC305_220531	HDPE (no PTFE)	20 mL	00350821018999	Grey	No	
137	0902_QC305_220531	HDPE (no PTFE)	20 mL	00350821019040	Grey	No	

Total Bottle Count: ALS: 434, Non ALS: 0

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2221117-AB**	Page	: 1 of 5
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR GEOFF TREDINNICK	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 8934 0000	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 16-Jun-2022 15:00
Order number	: 60612562_5.1	Date Analysis Commenced	: 17-Jun-2022
C-O-C number	: ----	Issue Date	: 23-Jun-2022 15:36
Sampler	: DIRK SANDERSON		
Site	: ----		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231X: Particular samples required dilution due to the presence of high level contaminants. LOR values have been adjusted accordingly.
- Amendment (23/06/2022):This report has been amended following a request to generate a split COA. All analytical results are as per the previous report.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_MW080_220616	----	----	----	----
				Sampling date / time	16-Jun-2022 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2221117-002	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.04**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.05**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.53**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.06**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_MW080_220616	----	----	----	----
				Sampling date / time	16-Jun-2022 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2221117-002	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.68**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.59**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.63**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**100**	----	----	----	----
13C8-PFOA	----	0.02	%		**108**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2221117-AB**	Page	: 1 of 7
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR GEOFF TREDINNICK	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 8934 0000	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 16-Jun-2022
Order number	: 60612562_5.1	Date Analysis Commenced	: 17-Jun-2022
C-O-C number	: ----	Issue Date	: 23-Jun-2022
Sampler	: DIRK SANDERSON		
Site	: ----		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4408579)									
EP2207305-002	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2221117-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	500	498	0.4	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	266	271	1.7	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	71.7	75.5	5.1	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	91.3	87.4	4.4	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	52.8	50.8	3.8	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	0.13	0.14	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4408579)									
EP2207305-002	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.03	0.04	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.05	0.05	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.04	0.03	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.06	0.05	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4408579) - continued									
ES2221117-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	75.6	68.9	9.3	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	43.1	37.8	13.1	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	178	183	2.9	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	37.0	35.4	4.4	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.20	0.22	10.3	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.04	<0.04	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.04	<0.04	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.04	<0.04	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.04	<0.04	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.11	<0.11	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	23.0	23.2	0.9	0% - 20%
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4408579)									
EP2207305-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2221117-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.04	<0.04	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.04	<0.04	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.04	<0.04	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.11	<0.11	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.11	<0.11	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.11	<0.11	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.11	<0.11	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4408579)									
EP2207305-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4408579) - continued									
EP2207305-002	Anonymous	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2221117-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	0.10	0.07	30.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4408579)									
EP2207305-002	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.28	0.27	3.6	0% - 20%
ES2221117-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	1340	1330	0.6	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4408579)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	109	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	108	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	122	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	116	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	109	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4408579)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	97.8	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	114	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	120	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	122	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	117	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	115	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	122	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	123	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	104	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4408579)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	96.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	93.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	104	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	90.3	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	83.8	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	114	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	99.8	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4408579)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	111	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	106	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	110	67.0	138

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4408579) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	109	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4408579)							
EP2207305-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	99.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	107	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	112	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	121	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	117	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	118	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4408579)							
EP2207305-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	103	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	112	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	97.8	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	119	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	111	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	113	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	113	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	117	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	113	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	114	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	128	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4408579)							
EP2207305-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	105	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	101	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	96.7	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	89.5	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	104	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	99.6	65.0	136

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4408579) - continued							
EP2207305-002	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	118	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4408579)							
EP2207305-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	101	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	117	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	117	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	104	71.4	144

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2221117**	Page	: 1 of 4
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR GEOFF TREDINNICK	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 16-Jun-2022
Site	: ----	Issue Date	: 23-Jun-2022
Sampler	: DIRK SANDERSON	No. of samples received	: 2
Order number	: 60612562_5.1	No. of samples analysed	: 2

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW107I_220616, 0902_MW080_220616	**16-Jun-2022**	**21-Jun-2022**	13-Dec-2022	✓	**21-Jun-2022**	13-Dec-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW107I_220616, 0902_MW080_220616	**16-Jun-2022**	**21-Jun-2022**	13-Dec-2022	✓	**21-Jun-2022**	13-Dec-2022	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0902_MW107I_220616, 0902_MW080_220616	**16-Jun-2022**	**21-Jun-2022**	13-Dec-2022	✓	**21-Jun-2022**	13-Dec-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW107I_220616, 0902_MW080_220616	**16-Jun-2022**	**21-Jun-2022**	13-Dec-2022	✓	**21-Jun-2022**	13-Dec-2022	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0902_MW107I_220616, 0902_MW080_220616	**16-Jun-2022**	**21-Jun-2022**	13-Dec-2022	✓	**21-Jun-2022**	13-Dec-2022	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	17	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2221117**
Amendment : **1**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR GEOFF TREDINNICK	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: Geoff.Tredinnick@aecom.com	E-mail	: Sepan.Mahamad@ALSGlobal.com
Telephone	: +61 02 8934 0000	Telephone	: +61 2 8784 8555
Facsimile	: +61 02 8934 0001	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 3
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: DIRK SANDERSON		

Dates

Date Samples Received	: 16-Jun-2022 15:00	Issue Date	: 23-Jun-2022
Client Requested Due Date	: 22-Jun-2022	Scheduled Reporting Date	: **22-Jun-2022**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 1.2'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 2 / 2

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (28 analytes)
ES2221117-001	16-Jun-2022 00:00	0902_MW107I_220616	✓
ES2221117-002	16-Jun-2022 00:00	0902_MW080_220616	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	catherine.hansen@aecom.com

DIRK SANDERSON

- *AU Certificate of Analysis - NATA (COA)	Email	dirk.sanderson@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	dirk.sanderson@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	dirk.sanderson@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	dirk.sanderson@aecom.com
- Chain of Custody (CoC) (COC)	Email	dirk.sanderson@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	dirk.sanderson@aecom.com
- EDI Format - XTab (XTAB)	Email	dirk.sanderson@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	dirk.sanderson@aecom.com

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - XTab (XTAB)	Email	Geoff.Tredinnick@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Geoff.Tredinnick@aecom.com

JESSICA ROY

- *AU Certificate of Analysis - NATA (COA)	Email	jessica.roy@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jessica.roy@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jessica.roy@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	jessica.roy@aecom.com
- Chain of Custody (CoC) (COC)	Email	jessica.roy@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	jessica.roy@aecom.com
- EDI Format - XTab (XTAB)	Email	jessica.roy@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	jessica.roy@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	mat.jenkins@aecom.com

AECOM

Chain of Custody

AECOM Australia Pty Ltd
Level 21, 420 George Street
Sydney, NSW, 2000
PO Box Q410, QVB PO, Sydney, NSW, 1230
T +61 2 8934 1000
F +61 2 8934 0001
Email reports to: Geoff.Tredinnick@aecom.com; catherine.hansen@aecom.com; derp.labreports@esdat.com.au; mat.jenkins@aecom.com; jessica.roy@aecom.com

Laboratory Details
Lab. Name: ALS
Lab. Address: 277-289 Woodpark Rd, Smithfield
Contact Name:
Lab. Ref:
Tel:
Fax:
Preliminary Report by:
Final Report by:
Lab Quote No: SY/139/19 v4

Sampled By: Dirk Sanderson | Project Name: NSW_0902_PFASOMP | AECOM Project #: 60612562 - 5.1 | Purchase Order No:

Specifications: Please report in ESdat format only
Please send ESdat files to *DERP.labreports@esdat.com.au* and ensure that the files use the PROJECT NAME

	Yes (tick)
1. Urgent TAT required? (please circle: 24hr 48hr **5 days**)	
2. Fast TAT Guarantee Required?	
3. Is any sediment layer present in waters to be excluded from extractions?	
4. % extraneous material removed from samples to be reported as per NEPM 5.1.1?	
5. Special storage requirements? (details: _____)	

6. Report Format: ESdat
7. Project Manager: Geoff Tredinnick

Analysis Request

Lab. ID	Sample ID	Sampling Date	Matrix: soil	Matrix: water	Matrix: sed	Preservation: filtered	Preservation: acid	Preservation: ice	Preservation: other	Container (No. & type)	PFAS extended Suite (standard LOR)	HOLD
	0902_MW107I_220616	16/06/2022		X				X		3 x 20ml	X	
	0902_MW080_220616	16/06/2022		X				X		3 x 20ml	X	

Comments: **Please send ESdat files to DERP.labreports@esdat.com.au and ensure that the files use the PROJECT NAME**
Temp. received: °C
Report & Invoice: Geoff.Tredinnick@aecom.com
Lab Report No.
Eskey ID

Relinquished by: D Sanderson Signed: Date: 16.6.22
Received by: Signed: Date:

Relinquished by: Signed: Date:
Received by: Signed: AJS Date: 16/6/22

Environmental Division
Sydney
Work Order Reference
ES2221117

Telephone : +61-2-8784 8555

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Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 296820

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	Geoff Tredinnick
Address	PO Box Q410, QVB Post Office, Sydney, NSW, 1230

Sample Details

Your Reference	**NSW_0902_PFASOMP, 60612562-5.1**
Number of Samples	13 Water, 3 Sediment
Date samples received	31/05/2022
Date completed instructions received	31/05/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	07/06/2022
Date of Issue	07/06/2022

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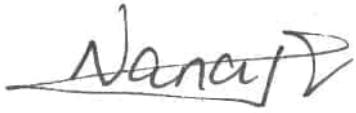
Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Diego Bigolin, Inorganics Supervisor
Giovanni Agosti, Group Technical Manager
Hannah Nguyen, Metals Supervisor
Josh Williams, Organics and LC Supervisor
Phalak Inthakesone, Organics Development Manager, Sydney

Authorised By



Nancy Zhang, Laboratory Manager

PFAS in Soils Extended			
Our Reference		296820-5	296820-8
Your Reference	UNITS	0902_QC204_220526	0902_QC207_220527
Date Sampled		26/05/2022	27/05/2022
Type of sample		Sediment	Sediment
Date prepared	-	03/06/2022	03/06/2022
Date analysed	-	03/06/2022	03/06/2022
Perfluorobutanesulfonic acid	µg/kg	<0.1	11
Perfluoropentanesulfonic acid	µg/kg	<0.1	13
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.8	110
Perfluoroheptanesulfonic acid	µg/kg	<0.1	25
Perfluorooctanesulfonic acid PFOS	µg/kg	5.9	1,400
Perfluorodecanesulfonic acid	µg/kg	<0.2	19
Perfluorobutanoic acid	µg/kg	<0.2	2.8
Perfluoropentanoic acid	µg/kg	<0.2	4.6
Perfluorohexanoic acid	µg/kg	0.1	18
Perfluoroheptanoic acid	µg/kg	<0.1	3.6
Perfluorooctanoic acid PFOA	µg/kg	<0.1	10
Perfluorononanoic acid	µg/kg	<0.1	2.4
Perfluorodecanoic acid	µg/kg	<0.5	5.3
Perfluoroundecanoic acid	µg/kg	<0.5	12
Perfluorododecanoic acid	µg/kg	<0.5	31
Perfluorotridecanoic acid	µg/kg	<0.5	14
Perfluorotetradecanoic acid	µg/kg	<5	9
4:2 FTS	µg/kg	<0.1	<0.1
6:2 FTS	µg/kg	<0.1	1.3
8:2 FTS	µg/kg	<0.2	5.8
10:2 FTS	µg/kg	<0.2	4.4
Perfluorooctane sulfonamide	µg/kg	<1	44
N-Methyl perfluorooctane sulfonamide	µg/kg	<1	<1
N-Ethyl perfluorooctanesulfon amide	µg/kg	<1	<1
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<1	<1
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<0.2	<0.2
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<0.2	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	96	89
Surrogate $^{13}C_2$ *PFOA*	%	103	96
Extracted ISTD $^{13}C_3$ *PFBS*	%	81	70
Extracted ISTD $^{18}O_2$ *PFHxS*	%	79	96
Extracted ISTD $^{13}C_4$ *PFOS*	%	86	98

PFAS in Soils Extended			
Our Reference		296820-5	296820-8
Your Reference	UNITS	0902_QC204_220526	0902_QC207_220527
Date Sampled		26/05/2022	27/05/2022
Type of sample		Sediment	Sediment
Extracted ISTD $^{13}C_4$ *PFBA*	%	92	79
Extracted ISTD $^{13}C_3$ *PFPeA*	%	87	77
Extracted ISTD $^{13}C_2$ *PFHxA*	%	89	76
Extracted ISTD $^{13}C_4$ *PFHpA*	%	83	59
Extracted ISTD $^{13}C_4$ *PFOA*	%	84	61
Extracted ISTD $^{13}C_5$ *PFNA*	%	85	43
Extracted ISTD $^{13}C_2$ *PFDA*	%	95	59
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	94	28
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	103	42
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	107	44
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	85	82
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	98	80
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	100	70
Extracted ISTD $^{13}C_8$ *FOSA*	%	94	48
Extracted ISTD d_3 *N MeFOSA*	%	83	36
Extracted ISTD d_5 *N EtFOSA*	%	87	46
Extracted ISTD d_7 *N MeFOSE*	%	89	40
Extracted ISTD d_9 *N EtFOSE*	%	87	47
Extracted ISTD d_3 *N MeFOSAA*	%	82	36
Extracted ISTD d_5 *N EtFOSAA*	%	94	43
Total Positive PFHxS & PFOS	µg/kg	6.7	1,500
Total Positive PFOS & PFOA	µg/kg	5.9	1,400
Total Positive PFAS	µg/kg	6.8	1,800

Moisture			
Our Reference		296820-5	296820-8
Your Reference	UNITS	0902_QC204_220526	0902_QC207_220527
Date Sampled		26/05/2022	27/05/2022
Type of sample		Sediment	Sediment
Date prepared	-	01/06/2022	01/06/2022
Date analysed	-	02/06/2022	02/06/2022
Moisture	%	31	73

PFAS in Waters Extended						
Our Reference		296820-1	296820-2	296820-3	296820-4	296820-6
Your Reference	UNITS	0902_QC200_220524	0902_QC201_220525	0902_QC202_220525	0902_QC203_220526	0902_QC205_220527
Date Sampled		24/05/2022	25/05/2022	25/05/2022	26/05/2022	27/05/2022
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	03/06/2022	03/06/2022	03/06/2022	03/06/2022	03/06/2022
Date analysed	-	03/06/2022	03/06/2022	03/06/2022	03/06/2022	03/06/2022
Perfluorobutanesulfonic acid	µg/L	0.08	0.14	0.01	0.22	0.49
Perfluoropentanesulfonic acid	µg/L	0.09	0.12	<0.01	0.17	0.46
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.59	0.53	0.09	0.64	3.1
Perfluoroheptanesulfonic acid	µg/L	0.03	<0.01	<0.01	<0.01	0.23
Perfluorooctanesulfonic acid PFOS	µg/L	0.27	0.07	0.07	0.05	7.9
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	µg/L	0.02	0.03	0.04	0.03	0.1
Perfluoropentanoic acid	µg/L	<0.02	<0.02	<0.02	0.03	0.2
Perfluorohexanoic acid	µg/L	0.02	0.07	0.03	0.17	0.86
Perfluoroheptanoic acid	µg/L	<0.01	<0.01	<0.01	0.02	0.15
Perfluorooctanoic acid PFOA	µg/L	0.02	<0.01	<0.01	0.01	0.31
Perfluorononanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	0.01
Perfluorodecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	µg/L	<0.01	<0.01	0.02	<0.01	0.06
8:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	101	96	98	106	104
Surrogate $^{13}C_2$ *PFOA*	%	109	101	105	117	102
Extracted ISTD $^{13}C_3$ *PFBS*	%	95	87	88	88	93
Extracted ISTD $^{18}O_2$ *PFHxS*	%	114	109	104	110	110
Extracted ISTD $^{13}C_4$ *PFOS*	%	95	100	101	96	92

PFAS in Waters Extended						
Our Reference		296820-1	296820-2	296820-3	296820-4	296820-6
Your Reference	UNITS	0902_QC200_220524	0902_QC201_220525	0902_QC202_220525	0902_QC203_220526	0902_QC205_220527
Date Sampled		24/05/2022	25/05/2022	25/05/2022	26/05/2022	27/05/2022
Type of sample		Water	Water	Water	Water	Water
Extracted ISTD $^{13}C_4$ *PFBA*	%	80	65	79	63	92
Extracted ISTD $^{13}C_3$ *PFPeA*	%	82	77	82	72	92
Extracted ISTD $^{13}C_2$ *PFHxA*	%	88	81	88	74	93
Extracted ISTD $^{13}C_4$ *PFHpA*	%	90	83	88	78	90
Extracted ISTD $^{13}C_4$ *PFOA*	%	83	82	86	71	90
Extracted ISTD $^{13}C_5$ *PFNA*	%	90	80	90	79	89
Extracted ISTD $^{13}C_2$ *PFDA*	%	101	91	98	88	106
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	97	83	96	90	96
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	91	82	90	77	91
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	83	85	88	78	80
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	81	71	86	66	86
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	88	75	83	68	79
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	90	78	93	68	102
Extracted ISTD $^{13}C_8$ *FOSA*	%	93	87	94	84	95
Extracted ISTD d_3 *N MeFOSA*	%	101	105	103	95	100
Extracted ISTD d_5 *N EtFOSA*	%	100	100	101	94	100
Extracted ISTD d_7 *N MeFOSE*	%	105	108	96	104	102
Extracted ISTD d_9 *N EtFOSE*	%	98	94	100	97	98
Extracted ISTD d_3 *N MeFOSAA*	%	73	65	71	55	80
Extracted ISTD d_5 *N EtFOSAA*	%	78	63	73	60	83
Total Positive PFHxS & PFOS	µg/L	0.86	0.60	0.16	0.70	11
Total Positive PFOA & PFOS	µg/L	0.29	0.07	0.07	0.06	8.2
Total Positive PFAS	µg/L	1.1	0.97	0.25	1.3	14

PFAS in Waters Extended						
Our Reference		296820-7	296820-9	296820-10	296820-12	296820-13
Your Reference	UNITS	0902_QC206_220526	0902_QC208_220531	0902_QC209_220530	0902_QC211_220531	0902_QC212_220531
Date Sampled		26/05/2022	31/05/2022	30/05/2022	31/05/2022	31/05/2022
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	03/06/2022	03/06/2022	03/06/2022	03/06/2022	03/06/2022
Date analysed	-	03/06/2022	03/06/2022	03/06/2022	03/06/2022	03/06/2022
Perfluorobutanesulfonic acid	µg/L	0.34	0.06	<0.01	0.03	<0.01
Perfluoropentanesulfonic acid	µg/L	0.42	0.06	<0.01	0.02	<0.01
Perfluorohexanesulfonic acid - PFHxS	µg/L	3.6	0.41	0.05	0.19	<0.01
Perfluoroheptanesulfonic acid	µg/L	0.15	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	0.88	0.02	0.03	0.29	<0.01
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	µg/L	0.06	0.09	0.04	0.03	<0.02
Perfluoropentanoic acid	µg/L	0.1	0.04	<0.02	<0.02	<0.02
Perfluorohexanoic acid	µg/L	0.53	0.13	<0.01	0.05	<0.01
Perfluoroheptanoic acid	µg/L	0.08	0.01	<0.01	<0.01	<0.01
Perfluorooctanoic acid PFOA	µg/L	0.20	<0.01	<0.01	0.02	<0.01
Perfluorononanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	99	102	100	101	102
Surrogate $^{13}C_2$ *PFOA*	%	99	103	102	104	102
Extracted ISTD $^{13}C_3$ *PFBS*	%	93	93	91	93	96
Extracted ISTD $^{18}O_2$ *PFHxS*	%	108	110	112	118	111
Extracted ISTD $^{13}C_4$ *PFOS*	%	101	100	97	96	102
Extracted ISTD $^{13}C_4$ *PFBA*	%	89	73	70	70	85

PFAS in Waters Extended						
Our Reference		296820-7	296820-9	296820-10	296820-12	296820-13
Your Reference	UNITS	0902_QC206_220526	0902_QC208_220531	0902_QC209_220530	0902_QC211_220531	0902_QC212_220531
Date Sampled		26/05/2022	31/05/2022	30/05/2022	31/05/2022	31/05/2022
Type of sample		Water	Water	Water	Water	Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	89	85	81	84	92
Extracted ISTD $^{13}C_2$ *PFHxA*	%	93	89	88	89	96
Extracted ISTD $^{13}C_4$ *PFHpA*	%	91	90	90	92	100
Extracted ISTD $^{13}C_4$ *PFOA*	%	92	88	86	88	92
Extracted ISTD $^{13}C_5$ *PFNA*	%	95	94	88	91	95
Extracted ISTD $^{13}C_2$ *PFDA*	%	103	97	104	101	104
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	90	97	96	100	101
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	81	96	85	92	97
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	54	88	80	87	82
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	89	91	90	90	106
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	90	94	91	95	96
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	91	101	98	102	98
Extracted ISTD $^{13}C_8$ *FOSA*	%	95	93	92	93	99
Extracted ISTD d_3 *N MeFOSA*	%	96	104	103	103	104
Extracted ISTD d_5 *N EtFOSA*	%	99	103	101	102	100
Extracted ISTD d_7 *N MeFOSE*	%	101	104	107	104	105
Extracted ISTD d_9 *N EtFOSE*	%	96	98	97	96	99
Extracted ISTD d_3 *N MeFOSAA*	%	82	75	70	75	87
Extracted ISTD d_5 *N EtFOSAA*	%	85	78	76	75	93
Total Positive PFHxS & PFOS	µg/L	4.5	0.43	0.07	0.48	<0.01
Total Positive PFOA & PFOS	µg/L	1.1	0.02	0.03	0.32	<0.01
Total Positive PFAS	µg/L	6.4	0.82	0.12	0.64	<0.01

Miscellaneous Inorganics		
Our Reference		296820-10
Your Reference	UNITS	0902_QC209_220530
Date Sampled		30/05/2022
Type of sample		Water
Date prepared	-	31/05/2022
Date analysed	-	31/05/2022
Ammonia as N in water	mg/L	0.40
Nitrate as N in water	mg/L	0.095
Nitrite as N in water	mg/L	0.054

Metals in Waters - Acid extractable		
Our Reference		296820-10
Your Reference	UNITS	0902_QC209_220530
Date Sampled		30/05/2022
Type of sample		Water
Date prepared	-	02/06/2022
Date analysed	-	02/06/2022
Phosphorus - Total	mg/L	0.2

Ion Balance		
Our Reference		296820-10
Your Reference	UNITS	0902_QC209_220530
Date Sampled		30/05/2022
Type of sample		Water
Date prepared	-	31/05/2022
Date analysed	-	31/05/2022
Calcium - Dissolved	mg/L	43
Potassium - Dissolved	mg/L	13
Sodium - Dissolved	mg/L	120
Magnesium - Dissolved	mg/L	27
Hardness	mgCaCO 3 /L	220
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5
Bicarbonate Alkalinity as $CaCO_3$	mg/L	210
Carbonate Alkalinity as $CaCO_3$	mg/L	<5
Total Alkalinity as $CaCO_3$	mg/L	210
Sulphate, SO4	mg/L	35
Chloride, Cl	mg/L	190
Ionic Balance	%	-2.0

All metals in water-dissolved		
Our Reference		296820-10
Your Reference	UNITS	0902_QC209_220530
Date Sampled		30/05/2022
Type of sample		Water
Date prepared	-	02/06/2022
Date analysed	-	02/06/2022
Aluminium-Dissolved	µg/L	<10
Iron-Dissolved	µg/L	530
Manganese-Dissolved	µg/L	730
Bromine-Dissolved	µg/L	1,100

Method ID	Methodology Summary
Inorg-006	Alkalinity - determined titrimetrically in accordance with APHA latest edition, 2320-B.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-040	The concentrations of the major ions (mg/L) are converted to milliequivalents and summed. The ionic balance should be within +/- 15% ie total anions = total cations +/-15%.
Inorg-055	Nitrate - determined colourimetrically. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a KCl extraction.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Waters samples are filtered on receipt prior to analysis. Alternatively determined by colourimetry/turbidity using Discrete Analyser.
Metals-020	Determination of various metals by ICP-AES.
Metals-022	Determination of various metals by ICP-MS.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.3 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			03/06/2022	[NT]	[NT]	[NT]	[NT]	03/06/2022	[NT]
Date analysed	-			03/06/2022	[NT]	[NT]	[NT]	[NT]	03/06/2022	[NT]
Perfluorobutanesulfonic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Perfluoropentanesulfonic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Perfluoroheptanesulfonic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Perfluorodecanesulfonic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluorobutanoic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	96	[NT]
Perfluoropentanoic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	102	[NT]
Perfluorohexanoic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Perfluoroheptanoic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluorononanoic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Perfluorodecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	100	[NT]
Perfluoroundecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluorododecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	102	[NT]
Perfluorotridecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	114	[NT]
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	104	[NT]
4:2 FTS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	106	[NT]
6:2 FTS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
8:2 FTS	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	98	[NT]
10:2 FTS	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	96	[NT]
N-Methyl perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	94	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	102	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	98	[NT]
EtPerfluorooctanesulf amid oacetic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	98	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	105	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	98	[NT]

QUALITY CONTROL: PFAS in Soils Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	110	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	105	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	101	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	108	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	116	[NT]	[NT]	[NT]	[NT]	119	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	94	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	108	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	119	[NT]	[NT]	[NT]	[NT]	113	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	110	[NT]	[NT]	[NT]	[NT]	108	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	97	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	105	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	106	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	91	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	101	[NT]

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	296820-2
Date prepared	-			03/06/2022	1	03/06/2022	03/06/2022		03/06/2022	03/06/2022
Date analysed	-			03/06/2022	1	03/06/2022	03/06/2022		03/06/2022	03/06/2022
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	0.08	0.09	12	119	120
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	0.09	0.09	0	107	119
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	1	0.59	0.58	2	102	104
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	0.03	0.02	40	105	101
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	1	0.27	0.27	0	103	102
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	119	122
Perfluorobutanoic acid	µg/L	0.02	Org-029	<0.02	1	0.02	0.02	0	104	107
Perfluoropentanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	108	109
Perfluorohexanoic acid	µg/L	0.01	Org-029	<0.01	1	0.02	0.02	0	109	108
Perfluoroheptanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	106	110
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	1	0.02	0.02	0	115	116
Perfluorononanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	109	102
Perfluorodecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	95	102
Perfluoroundecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	119	114
Perfluorododecanoic acid	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	113	118
Perfluorotridecanoic acid	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	116	124
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	99	97
4:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	98	99
6:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	108	106
8:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	97	103
10:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	104	110
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	108	111
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	109	107
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	106	112
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	121	126
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	112	117
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	106	110
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	110	105
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	99	1	101	102	1	102	103
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	98	1	109	103	6	99	104

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	296820-2
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	89	1	95	93	2	97	89
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	104	1	114	115	1	101	106
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	100	1	95	97	2	99	96
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	100	1	80	79	1	103	65
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	92	1	82	84	2	97	75
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	91	1	88	88	0	93	75
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	89	1	90	88	2	94	81
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	84	1	83	86	4	92	75
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	87	1	90	94	4	99	83
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	102	1	101	92	9	103	86
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	86	1	97	89	9	97	82
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	85	1	91	89	2	94	77
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	81	1	83	80	4	81	88
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	76	1	81	85	5	81	67
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	73	1	88	88	0	89	70
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	88	1	90	88	2	90	77
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	86	1	93	91	2	94	98
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	97	1	101	103	2	96	100
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	96	1	100	103	3	99	101
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	101	1	105	105	0	101	104

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	296820-2
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	99	1	98	98	0	99	102
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	81	1	73	73	0	88	94
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	81	1	78	72	8	88	95

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			31/05/2022	[NT]	[NT]	[NT]	[NT]	31/05/2022	[NT]
Date analysed	-			31/05/2022	[NT]	[NT]	[NT]	[NT]	31/05/2022	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	[NT]	[NT]	[NT]	[NT]	104	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	<0.005	[NT]	[NT]	[NT]	[NT]	94	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	<0.005	[NT]	[NT]	[NT]	[NT]	95	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			02/06/2022	[NT]	[NT]	[NT]	[NT]	02/06/2022	[NT]
Date analysed	-			02/06/2022	[NT]	[NT]	[NT]	[NT]	02/06/2022	[NT]
Phosphorus - Total	mg/L	0.05	Metals-020	<0.05	[NT]	[NT]	[NT]	[NT]	110	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			31/05/2022	[NT]	[NT]	[NT]	[NT]	31/05/2022	[NT]
Date analysed	-			31/05/2022	[NT]	[NT]	[NT]	[NT]	31/05/2022	[NT]
Calcium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	96	[NT]
Potassium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	90	[NT]
Sodium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	89	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	95	[NT]
Hardness	mgCaCO 3 /L	3	Metals-020	<3	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	111	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Chloride, Cl	mg/L	1	Inorg-081	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]

QUALITY CONTROL: All metals in water-dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date prepared	-			02/06/2022	[NT]	[NT]	[NT]	[NT]	02/06/2022	[NT]
Date analysed	-			02/06/2022	[NT]	[NT]	[NT]	[NT]	02/06/2022	[NT]
Aluminium-Dissolved	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	105	[NT]
Iron-Dissolved	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	98	[NT]
Manganese-Dissolved	µg/L	5	Metals-022	<5	[NT]	[NT]	[NT]	[NT]	101	[NT]
Bromine-Dissolved	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	98	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Total metals: no unfiltered, preserved sample was received, therefore analysis was conducted from the unpreserved sample bottle. Note: there is a possibility some elements may be underestimated.

PFAS: For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

AECOM — Chain of Custody

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Laboratory Details
Lab. Name: Envirolab
Lab. Address: 12 Ashley St, Chatswood NSW 2067
Contact Name:
Lab. Ref:
Tel: 0267 848 555
Fax: NA
Preliminary Report by:
Final Report by:
Lab Quote No: SY/139/19 v4

Sampled By: Andrew Spoor, Nicola Tomlin | **Project Name:** NSW_0902_PFASOMP | **AECOM Project #:** 60612562 - 5.1 | **Purchase Order No:**

Specifications: Please report in ESdat format only
Please send ESdat files to *DERP.labreports@esdat.com.au* and ensure that the files use the PROJECT NAME

	Yes (tick)
1. Urgent TAT required? (please circle: 24hr 48hr 5 days)	
2. Fast TAT Guarantee Required?	
3. Is any sediment layer present in waters to be excluded from extractions?	
4. % extraneous material removed from samples to be reported as per NEPM 5.1.1?	
5. Special storage requirements? (details: _____)	

6 Report Format: • ESdat
7. Project Manager: Geoff Tredinnick

Analysis Request

Notes
Major Ions to include: calcium, magnesium, potassium, sodium, chloride, sulphate, bicarbonate, carbonate, fluoride.
TaT: Standard Turn Around Time on all samples.

Lab. ID	Sample ID	Sampling Date	Matrix: soil	water	sed	Preservation: filtered	acid	ice	other	Container (No. & type)	PFAS extended Suite (standard LOR)	Nutrients (ammonia, nitrate, nitrite, phosphorous)	Aluminium, bromine, iron, magnese (Field filtered)	Major Cations and Major anions	HOLD	Notes
1	0902_QC200_220524	24/05/2022		X				X		3 - 20ml jars	X					
2	0902_QC201_220525	25/05/2022		X				X		3 - 20ml jars	X					
3	0902_QC202_220525	25/05/2022		X				X		3 - 20ml jars	X					
4	0902_QC203_220526	26/05/2022		X				X		3 - 20ml jars	X					
5	0902_QC204_220526	26/05/2022			X			X		1 - 200ml jar	X					
6	0902_QC205_220527	27/05/2022		X				X		3 - 20ml jars	X					
7	0902_QC206_220526	26/05/2022		X				X		3 - 20ml jars	X					
8	0902_QC207_220527	27/05/2022			X			X		1 - 200ml jar	X					
9	0902_QC208_220531	31/05/2022		X				X		3 - 20ml jars	X					
10	0902_QC209_220530	30/05/2022		X		X		X		6 - 3x 20ml jars, 1green 25ml, 1 Purple 60mL, 1 Red 60ml	X	X	X	X		Please note short holding time on this sample
11	0902_QC210_220530	30/05/2022			X			X		1 - 200ml jar					X	
12	0902_QC211_220531	31/05/2022		X				X		3 - 20ml jars	X					
13	0902_QC212_220531	31/05/2022		X				X		3 - 20ml jars	X					
14	0902_QC213_220531	31/05/2022		X				X		3 - 20ml jars	X					
15	0902_QC214_220531	31/05/2022		X				X		3 - 20ml jars	X					
16	0902_QC215_220531	31/05/2022		X				X		3 - 20ml jars	X					

Comments:	Please send ESdat files to DERP.labreports@esdat.com.au and ensure that the files use the PROJECT NAME	Temp. received: °C	Report & invoice: Geoff.Tredinnick@aecom.com, catherine.hansen@aecom.com	Lab Report No.	COC ID
Relinquished by:	Nicola Tomlin	Signed:	Date: 31/05/2022	Relinquished by:	Signed:	Date:
Received by:		Signed:	Date:	Received by: AP	Signed:	Date: 31/5/22

ENVIROLAB GROUP
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 296820
Date Received: 31-5-22
Time Received: 1830
Received by: AP · ds
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	Geoff Tredinnick

Sample Login Details

Your reference	NSW_0902_PFASOMP, 60612562-5.1
Envirolab Reference	296820
Date Sample Received	31/05/2022
Date Instructions Received	31/05/2022
Date Results Expected to be Reported	07/06/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	13 Water, 3 Sediment
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	11
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
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customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	PFAS in Soils Extended	PFAS in Waters Extended	Ammonia as N in water	Nitrate as N in water	Nitrite as N in water	Metals in Waters -Acid extractable	Calcium - Dissolved	Potassium - Dissolved	Sodium - Dissolved	Magnesium - Dissolved	Hardness	Hydroxide Alkalinity (OH-) as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Total Alkalinity as CaCO3	Sulphate, SO4	Chloride, Cl	Ionic Balance	All metals in water-dissolved	On Hold
0902_QC200_220524		✓																		
0902_QC201_220525		✓																		
0902_QC202_220525		✓																		
0902_QC203_220526		✓																		
0902_QC204_220526	✓																			
0902_QC205_220527		✓																		
0902_QC206_220526		✓																		
0902_QC207_220527	✓																			
0902_QC208_220531		✓																		
0902_QC209_220530		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
0902_QC210_220530	✓																			
0902_QC211_220531		✓																		
0902_QC212_220531		✓																		
0902_QC213_220531																				✓
0902_QC214_220531																				✓
0902_QC215_220531																				✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

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Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt. Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Prepared for
Department of Defence
ABN: 68706814312

AECOM

Sampling Event Factual Report, November 2022

PFAS OMP - RAAF Base Richmond

21-Apr-2023
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Sampling Event Factual Report, November 2022

PFAS OMP - RAAF Base Richmond

Client: Department of Defence

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List of Acronyms

Acronym	Term
ADWG	Australian Drinking Water Guidelines
AECOM	AECOM Australia Pty Ltd
AFFF	Aqueous Film Forming Foam
AHD	Australian Height Datum
AIR	Annual Interpretive Report
ASC NEPM	Assessment of Site Contamination National Environment Protection Measure
BOM	Bureau of Meteorology
DCMM	Defence Contamination Management Manual
Defence	Department of Defence
DO	Dissolved Oxygen
DoH	Department of Health
DQI	Data Quality Indicator
DQO	Data Quality Objective
EC	Electrical Conductivity
EPA	Environment Protection Authority
FSANZ	Food Standards Australia New Zealand
HEPA	Heads of Environment Protection Authority
HHERA	Human Health and Ecological Risk Assessment
JBT	Jervis Bay Territory
LOR	Limit of Reporting
MW	Monitoring Well
NATA	National Analytical Testing Authority
NEMP	National Environmental Management Plan
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OMP	Ongoing Monitoring Plan
ORP	Oxidation Reduction Potential
PFAS	Per- and poly-fluoroalkyl substances
PFHxS	Perfluorohexane sulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control

Acronym	Term
RPD	Relative Percentage Difference
SAQP	Sample and Analysis Quality Plan
SD	Sediment
SW	Surface Water
SWL	Standing Water Level
TOC	Top of Casing
WQM	Water Quality Meter

List of Units

Units	Term
µg/L	Micrograms per Litre
µS/cm	Micro Siemen per centimetre
g	Gram
km	Kilometre
L	Litre
m	Metre
mAHD	Metres Australian Height Datum
mbgl	Metres below ground level
mbTOC	Metres below Top of Casing
Meq/L	Milliequivalent per Litre
mg/kg	Milligrams per kilogram
mg/L	Milligrams per Litre
mV	Millivolts

1.0 Introduction

1.1 General

AECOM Australia Pty Ltd (AECOM) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at the RAAF Base Richmond (the 'Site', Site ID 0902) in the NSW and JBT Region. The location of the Site and Management Area is shown in **Figure F1** in **Appendix A**.

The OMP (Defence, 2019a) outlines the sampling requirements for the Site and off-Site areas within the Management Area.

Following each sampling event, factual sampling event reports will be prepared. Annual interpretive reports will be prepared following the completion of each 12-month sampling period.

This Sampling Event Factual Report has been prepared to report the results of the November 2022 biannual sampling event, specifically highlighting first-time detections and/or new exceedances of human health or ecological screening criteria for the sum of Perfluorooctane sulfonic acid (PFOS) and Perfluorohexane sulfonic acid (PFHxS) (herein referred to as PFOS+PFHxS), PFOS and/or Perfluorooctanoic acid (PFOA).

This report has been prepared in accordance with the Defence *PFAS OMP Factual Report Guidance (Version 0.2)* issued in May 2021 (Defence, 2021).

1.2 Objectives

The objectives were to:

- implement the OMP (Defence, 2019a) prepared as part of the Detailed Environmental Investigations; and
- collect data that will enable Defence to maintain an up to date understanding of the distribution, concentration, transport, and transformation of PFAS.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PFAS Management Area Plan (PMAP) (Defence, 2019b).

The objective of this phase of works was to implement the scope of works for the November 2022 biannual sampling event in accordance with the Sampling and Analysis Quality Plan (SAQP) (AECOM, 2022).

2.0 Scope of Work

The scope of works was completed generally in accordance with the SAQP (AECOM, 2022), as follows:

- obtain permission (where required) to conduct works at the Site, off-Site publicly accessible areas and at private properties
- gauging of groundwater level in monitoring wells prior to collection of samples
- groundwater sampling and collection of water quality parameters at 80 of 84 scheduled monitoring wells (refer to **Table 1** below and **Figure F2** in **Appendix A** for specific locations)
- surface water sampling and collection of water quality parameters at 20 of 22 scheduled surface water locations (refer to **Table 2** below and **Figure F3** in **Appendix A** for specific locations)
- sediment sampling at 20 of 21 scheduled sediment locations (refer to **Table 3** below and **Figure F4** in **Appendix A** for specific locations)
- collection of field duplicate samples at a rate of 1 in 10 primary samples
- analysis of all samples for PFAS suite at the standard limit of reporting (LOR), and analysis of select groundwater and surface water samples for nutrients (ammonia, nitrate, nitrite, phosphorous), metals (aluminium, bromide, iron and manganese), and anions and cations
- data management of the OMP field and laboratory data in Defence ESdat database
- preparation of this Sampling Event Factual Report.

Note: due to privacy considerations, selected monitoring locations are unable to be shown on the figures in **Appendix A**.

Table 1 Groundwater Sampling Locations

Area	Description	Sampling Location	Total
On-Site	West of Site (including Airfield Former Fire Ground/Training Ground)	MW008, MW009, MW010, MW040, MW041	5
	Airfield Foam Cannon Testing Area and Surrounds	MW030, MW053, MW054, MW056, MW057, MW058, MW059, MW107D, MW107I, MW108	10
	Airfield Flight Line (including Fire Station, Building 291)	MW007, MW024, MW025, MW026, MW027, MW028, MW042, MW043	8
	Site Infrastructure (including Hangar 54)	MW044*, MW045, MW046, MW060, MW061, MW062, MW063, MW064, MW065, MW066, MW067, MW068, MW069, MW070, MW071	15
	East of Site (including Tanker Parking Area and Former Fuel Farm 1)	MW047, MW048, MW050, MW051, MW052, MW072, MW073, MW074	8
	Sewage Treatment Plant and Surrounds	MW020, MW021, MW022, MW023, MW036, MW109, MW110	7
	Fuel Farm 2	MW032, MW033, MW034	3
	Rickabys Drop Zone	MW001, MW002, MW004, MW005, MW012, MW013, MW014, MW015, MW016, MW017, MW111, MW112, MW113, MW114	14

Area	Description	Sampling Location	Total
Off-Site	West of Site	MW075, MW076, MW077, MW078, MW081	5
	Northwest of Site	MW079, MW080, MW082, MW106	4
	Northeast of Site	MW097*, MW098*	2
	East of Site	MW086*, MW091, MW092	3
Total			**84**
* Location not sampled			

Table 2 Surface Water Sampling Locations

Area	Description	Sampling Location	Total
On-Site	Northwest of Site (including STP discharge point)	SW001*, SW002, SW003, SW037	4
	Northeast of Site (including tributary of Rickabys Creek)	SW005, SW007, SW014	3
	East of Site (including Rickabys Creek)	SW008, SW009, SW011, SW013	4
Off-Site	West of Site	SW022, SW024, SW035	3
	North of Site	SW015, SW016, SW081*	3
	East of Site	SW018, SW019, SW023, SW030	4
	South of Site	SW020	1
Total			**22**
* Location not sampled			

Table 3 Sediment Sampling Locations

Area	Description	Sampling Location	Total
On-Site	Northwest of Site (including STP discharge point)	SD001, SD002, SD003	3
	Northeast of Site (including tributary of Rickabys Creek)	SD005, SD007, SD014	3
	East of Site (including Rickabys Creek)	SD008, SD009, SD011, SD013	4
Off-Site	West of Site	SD022, SD024, SD035	3
	North of Site	SD015, SD016, SD081*	3
	East of Site	SD018, SD019, SD023, SD030	4
	South of Site	SD020	1
Total			**21**
* Location not sampled			

3.0 Deviations from the SAQP

The November 2022 biannual sampling event was completed in general accordance with the SAQP (AECOM, 2022) with the exception of the deviations outlined in **Table 4** below.

Table 4 Deviations from SAQP (AECOM, 2022)

SAQP Deviation	Comment / Justification	Impact on Dataset
Samples, and associated gauging data and field parameters, were not collected from 4 of the 84 scheduled groundwater sampling locations.	Groundwater monitoring well MW044 could not be located and could not be gauged and sampled during this event. The well could not be located despite the assistance of a surveyor with a differential GPS and is considered likely to have been destroyed during recent construction works in 2021/2022. Groundwater monitoring well MW086 was covered by a soil stockpile from recent road rectification works along Percival Street and could not be gauged and sampled during this event. Groundwater monitoring wells MW097 and MW098 could not be located and could not be gauged and sampled during this event. The wells could not be located despite the assistance of a surveyor with a differential GPS and are considered likely to have been destroyed during recent floods.	The lack of gauging and sampling data for MW044 is not considered to have a significant impact on the dataset, or present a significant data gap, as the existing monitoring well network provides sufficient coverage in this area (i.e. MW045 and MW046). The lack of gauging and sampling data for MW086 is not considered to have a significant impact on the dataset, or present a significant data gap, as another two monitoring wells (MW091 and MW092) further downgradient in the off-Site area were able to be gauged and sampled during this event. The lack of gauging and sampling data for MW097 and MW098 presents a data gap in the off-site coverage of the down-hydraulic extent of the identified PFAS groundwater plume. AECOM will discuss the requirement to install replacement wells with Defence's Lead Consultant.
Samples, and associated field parameters, were not collected from 2 of the 22 scheduled surface water locations.	Surface water location SW001 was dry and could not be sampled during this sampling event. The field team visited the location on three separate occasions over the course of the sampling event, and confirmed the location was dry each time. Surface water location SW081 was inaccessible, due to the road closure and rectification works associated with a recent landslip and could not be sampled during this sampling event.	The lack of sampling data for SW001 is not considered to have a significant impact on the data or present a significant data gap, given that the location is an ephemeral drainage line and is not expected to have water present at all times. The lack of sampling data for SW081 continues to present a data gap in the understanding of PFAS migration from Bakers Lagoon to the Hawkesbury River. AECOM is currently investigating alternative access arrangements to Bakers Lagoon to collect data during future OMP sampling events.

SAQP Deviation	Comment / Justification	Impact on Dataset
Samples were not collected from 1 of the 21 scheduled sediment locations.	Sediment location SD081 was inaccessible, due to the road closure and rectification works associated with a recent landslip and could not be sampled during this sampling event.	The lack of sampling data for SD081 continues to present a data gap in the understanding of PFAS migration from Bakers Lagoon to the Hawkesbury River. AECOM is currently investigating alternative access arrangements to Bakers Lagoon to collect data during future OMP sampling events.
Additional analysis, for nutrients (ammonia, nitrate, nitrite, phosphorous), selected metals (aluminium, bromine, iron and manganese) and anions/cations, was not analysed for 3 of the 10 scheduled groundwater locations.	Samples from monitoring wells MW001, MW009, MW010, MW022, MW075, MW081, MW082, MW091, MW097 and MW098 are to be analysed for additional analysis. The additional analysis was not scheduled for the sample collected from monitoring well MW082, due to field error, and was not able to be scheduled for monitoring wells MW097 and MW098, as these locations could not be sampled during this sampling event.	The lack of additional analysis for select locations is not considered to have a significant impact on the dataset, or present a significant data gap, given that sufficient non-PFAS data was collected during the initial OMP implementation period (a three year period). The original objective for conducting the additional analysis was to identify potential correlation between PFAS and non-PFAS concentrations, in order to identify any significant off-site contributions to PFAS concentrations from agriculture or heavy industries. No correlation was found based on the data collected to date. As such, the requirement to collect and analyse non-PFAS data was re-assessed in conjunction with Defence's current Lead Consultant (AECOM). This requirement was determined to no longer be necessary and non-PFAS data can be removed from the OMP scope of works ahead of the next sampling event in May 2023.

4.0 Methodology

4.1 Sampling Methodology

The methodology used for the November 2022 biannual sampling event was in general accordance with the SAQP (AECOM, 2022) and is summarised in **Table 5** below.

Table 5 Sampling Methodology

Item	Details
Groundwater gauging	The depth to groundwater was measured in each monitoring well immediately prior to collection of groundwater samples using an interface probe.
Field parameters	Temperature, electrical conductivity (EC), dissolved oxygen (DO), oxidation-reduction potential (ORP), pH and observations of water quality were recorded for groundwater and surface water samples. Field parameters were collected using a calibrated water quality meter (WQM). The equipment supplier and field calibration records are provided in **Appendix C**.
Sampling methodology	**Groundwater Monitoring Wells** Groundwater samples were generally collected from each monitoring well using HydraSleeves™, a no-purge sampling methodology. HydraSleeves™ were installed within the screened interval of the wells for a minimum of 24 hours prior to the sampling round, based on a review of the well construction log. For this event, all the HydraSleeves™ were installed during previous sampling rounds in May 2022 and November 2021. Once sampling was completed, new HydraSleeves™ were deployed in each of the monitoring wells, within the screened interval depth in preparation for the next sampling round. At locations where the HydraSleeves™ failed to deploy or had been removed prior to the sampling event by Defence's Regional Water Quality Monitoring Program (RWQMP) contractor, AECOM collected groundwater samples using dedicated, disposable bailers. During this sampling event, bailers were used at the following monitoring wells as no HydraSleeves™ were present: MW005, MW007, MW009, MW010, MW012, MW020, MW032, MW033, MW041, MW043, MW047, MW050, MW051, MW052, MW053, MW056, MW057, MW058, MW060, MW061, MW072, MW073, MW074, MW078. AECOM will engage with Defence's RWQMP contractor ahead of the next scheduled sampling event to attempt to deconflict the sampling programs and minimize (where possible) the samples to be collected with disposable bailers. **Surface Water** Surface water samples were collected from immediately below the water surface (approximately 10 centimetres [cm] below the surface water level, where depth permitted) to minimise collection of sediment, surface film or floating materials in the samples. At each location, a new, laboratory supplied container was lowered into the water (either by hand or using a sampling pole) with the cap immediately applied once the container was full. **Sediment** Sediment samples representative of potentially deposited sediments were collected from within the water body, using a hand trowel to a maximum depth of

Item	Details
	0.3 metres below ground level (mbgl). A new laboratory supplied container was used at each location for collection of samples.
QA/QC Samples	A QA/QC program was implemented for the sampling and analysis program in order to obtain representative data and assess the reliability of the data obtained. To facilitate the QA/QC program the following sample types were obtained during the sampling program: • *Intra-laboratory duplicates* collected at a rate of 1 in 10 primary samples. The relative percentage difference (RPD) should be less than 30%, or less than 50% if results are less than 20 times the limit of reporting (LOR). Higher RPDs may also be acceptable if results are less than 10 times the LOR. • *Inter-laboratory duplicates* collected at a rate of 1 in 10 primary samples. The relative percentage difference (RPD) should be less than 30%, or less than 50% if results are less than 20 times the limit of reporting (LOR). Higher RPDs may also be acceptable if results are less than 10 times the LOR. • *Rinsate blanks* collected at a frequency of one per set of sampling equipment per day where equipment was reused between locations. Analytical results should be below the laboratory limit of reporting (LOR). For this November 2022 biannual sampling event, the QA/QC samples included: • 14 x intra-laboratory duplicates (7 groundwater, 4 surface water and 3 sediment) which met the target frequency • 14 x inter-laboratory duplicates (9 groundwater, 2 surface water and 3 sediment) which met the target frequency • 8 x rinsate blanks, which met the target frequency. The data validation assessment is presented in **Appendix D**.
Sample analysis	All samples were submitted to the primary and secondary laboratories for PFAS suite at the standard limit of reporting (LOR), and analysis of select groundwater and surface water samples for nutrients (ammonia, nitrate, nitrite, phosphorous), metals (aluminium, bromide, iron and manganese), and anions and cations. The selected groundwater and surface water locations for additional analysis are as follows: monitoring wells MW001, MW009, MW010, MW022, MW075, MW081 MW082, MW091, MW097 and MW098; surface water locations SW003, SW008, SW009, SW015, SW016, SW020, SW022, SW023, SW024 and SW035. Additional analysis was not able to be collected at locations MW082, MW097 and MW098. ALS Environmental (ALS) Sydney, NSW was used as the primary laboratory. Envirolab Services (Envirolab) Sydney, NSW was used as the secondary laboratory. ALS and Envirolab methods for analyses were certified by the National Association of Testing Authorities (NATA). A summary of the laboratory results is presented in **Section 5.0** and the laboratory certificates are presented in **Appendix E**.

4.2 Adopted Screening Criteria

Guidance documents used to assess the dataset include the following:

- Heads of EPAs Australia and New Zealand (HEPA) 2020. *PFAS National Environmental Management Plan 2.0*. January 2020.
- Department of Health, 2017. *Health Based Guidance Values for PFAS for use in site investigations in Australia*. April 2017.
- FSANZ, 2017. *Supporting Document 1: Hazard assessment report – Perfluorooctane Sulfonate (PFOS), Perfluorooctanoic Acid (PFOA), Perfluorohexane Sulfonate (PFHxS).*
- National Health and Medical Research Council (NHMRC), 2019. *Guidance on PFAS in Recreational Water.* August 2019.
- National Environment Protection Council (NEPC), 2013. *Schedule B1. National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) Schedule B1 Guideline on Investigation Levels For Soil and Groundwater.*

The adopted PFAS screening criteria to assess the data generated as part of the OMP are presented in **Table 6** below.

Table 6 Summary of Adopted Screening Criteria

Media	Pathway	Compound	Criteria	Comment/Reference
Human Health Receptors				
Water – Groundwater	Drinking water	PFOS + PFHxS	0.07 µg/L	The values presented in the PFAS NEMP, 2020 are from DoH 2017, which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH utilised the TDI for PFOS and PFOA from FSANZ, 2017 and the methodology described in Chapter 6.3.3 of the National Health and Medical Research Council's (NHMRC) Australian Drinking Water Guidelines (ADWG), 2011 (updated in January 2022) to determine drinking water values.
		PFOA	0.56 µg/L	For PFHxS, DoH 2017 noted that '*FSANZ concluded that there was not enough toxicological and epidemiological information to justify establishing a tolerable daily intake. However, as a precaution, and for the purposes of site investigations, the PFOS tolerable daily intake should apply to PFHxS. In practice, this means that the level of PFHxS exposure should be added to the level of PFOS exposure; and this combined level be compared to the tolerable daily intake for PFOS*'. *All groundwater results were compared to these criteria.*

Media	Pathway	Compound	Criteria	Comment/Reference
Water – Surface Water	Recreational use	PFOS + PFHxS	2 µg/L	In August 2019, NHMRC released guidance on the assessment of PFAS in surface water. Rather than adopting an ingestion rate of 0.2 L of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year. These values were adopted in the PFAS NEMP, 2020. *All surface water results were compared to these criteria.*
		PFOA	10 µg/L	
Ecological Receptors				
Water – Groundwater and Surface Water	Freshwater	PFOS	0.00023 µg/L	The values are from the PFAS NEMP, 2020 which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality. The 99% species protection level (for freshwater and interim marine) has been applied for high value conservation systems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. It is proposed that the laboratory LOR is adopted for the purposes of preliminary screening of analytical water results, rather than sole use of the criteria value. *All groundwater and surface water results were compared to these criteria.*
		PFOA	19 µg/L	

4.3 Data Quality Objectives and Data Validation

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2022). Data validation assessment is provided in **Appendix D**.

Data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

All data collected during this event has been reviewed and uploaded to the Defence ESdat database in accordance with Defence Contamination Management Manual (DCMM) requirements.

5.0 Field Observations and Results

5.1 General Observations

The weather conditions and general observations (including activities that may impact the monitoring program) recorded during the November 2022 biannual sampling event completed between 2 and 21 November 2022 are summarised in **Table 7** below.

Table 7 General Observations

Items	Observations
Weather Conditions	During the sampling event, the weather was observed to be mostly dry and warm, with maximum daily temperatures between 20.5 ˚C (2 November 2022) and 26.9 ˚C (11 November 2022). No rainfall was recorded on sampling days (2, 3, 7, 8, 10, 11, 18, 21 November 2022), however, a cumulative 31.2 mm of rainfall was recorded at Richmond (Richmond RAAF, Station 067105) (Bureau of Meteorology, 2023) during the whole span of the sampling event, with most of the rainfall recorded on 14 November 2022 (29 mm).
Estate Management Works, Training Activities and/or Construction Works.	Various road rectification and construction works being carried out by Hawkesbury Council were ongoing during the November 2022 sampling event, including along Percival Street and Cornwallis Road, and in some cases prevented access to sampling locations. No estate management works or training activities were observed during the November 2022 sampling event, that would impact the sampling program.

5.2 Field Observations and Measurements

The observations and measurements recorded during the field activities for the November 2022 biannual sampling event are summarised in **Table 8**, below.

Table 8 Field Observations and Measurements

Item	Description
Monitoring Well Network Condition	The wells sampled were observed to be in good condition with the exception of the following: • MW012, MW022 and MW051 have damaged monuments, with missing lids or bent at ground level. AECOM proposes to repair these monuments ahead of the next scheduled sampling event. • MW040, MW077 and MW063 were observed to have damaged gatic lids or bolts. AECOM will attempt to repair and/or replace these gatic lids during the next scheduled sampling event. • MW004, MW051, MW052 and MW072 were missing the J-cap in the well casing. AECOM replaced the J-caps (in MW051, MW052 and MW072), where there was sufficient space in the well gatics/monuments. It is noted that, as MW051 was also missing the well lid on the monument, the well was exposed to water ingress from rainfall. • MW064 had the well gatic full of water above top of casing. The water was removed prior to sampling at the location. • MW024, MW026, MW028, MW032, MW033, MW034, MW063, MW081 had well gatics full of water below top of casing.

Item	Description
	• MW044, MW086, MW097 and MW098 were unable to be assessed as the wells were not able to be located or accessed.
Water Observations	Foam of unknown origin was observed at one surface water location (SW024). Biosheens were noted in one groundwater location (MW034) and in five surface water locations (SW003, SW007, SW009, SW014 and SW016). Sulphurous odours were noted at one groundwater location (MW040). Organic odours were noted at one groundwater locations (MW050).
Depth to Groundwater and Flow Direction	Depth to groundwater ranged from 0.000 (MW081) and 16.652 (MW054) metres below top of casing (mbTOC). Groundwater elevation ranged between -0.054 (MW072) and 15.940 (MW071) metres Australian Height Datum (mAHD). It is noted that groundwater elevation data from MW072 was excluded from the contours given the potential ingress of surface water (due to the absence of a J-cap) and the depth to water was not consistent with historical data. Groundwater gauging data is presented in **Table T1** in **Appendix B**. The inferred groundwater flow direction for the regional shallow (unconfined) aquifer is to the north, east and northeast towards the Hawkesbury River (refer to **Figure F5** in **Appendix A**), which was generally consistent with previous flow directions. Note that gauging data from a number of groundwater monitoring wells were omitted from the contour plan, due to the following: • MW070 and MW071: installed with screens targeting the underlying lower aquifer • MW036, MW043, MW053 and MW072: due to inconsistencies identified in historical TOC elevations or gauging data that may potentially impact elevation readings .
Geochemical Parameters	Groundwater and surface water geochemical parameters were measured during the collection of water samples. The readings are presented in **Table T2** and **Table T3** in **Appendix B** and are summarised below: **Groundwater Geochemical Parameters** • Dissolved oxygen ranged from 0.37 mg/L (MW064) to 10.77 mg/L (MW112) indicating poor to well oxygenated conditions. • Electrical conductivity ranged from 67.6 µS/cm (MW015) to 15,124 µS/cm (MW005) indicating fresh to saline conditions. • pH ranged from 5.68 (MW091) to 7.73 (MW028) indicating moderately acidic to neutral conditions. • Redox ranged from -151.6 mV (MW064) to 235.5 mV (MW081) indicating reducing to oxidising conditions. **Surface Water Geochemical Parameters** • Dissolved oxygen ranged from 0.49 mg/L (SW014) to 12.44 mg/L (SW035) indicating poor to well oxygenated conditions. • Electrical conductivity ranged from 11.9 µS/cm (SW008) to 1,880 µS/cm (SW015) indicating fresh to brackish conditions. • pH ranged from 6.34 (SW014) to 8.37 (SW020) indicating neutral to slightly alkaline conditions. • Redox ranged from -77.4 mV (SW014) to 160.5 mV (SW035) indicating reducing to oxidising conditions.

Item	Description
Sediment Observations	Sediment sampled and logged during this monitoring event comprised sand, silt and clay materials with minor inclusions of gravels and varying amounts of organic material (mostly roots). No anthropogenic inclusions or staining were observed. No odours were noted in the samples from sediment locations. Refer to in **Table T4** in **Appendix B** for a summary of sediment classifications and observations.

5.3 Summary of Analytical Results

5.3.1 Groundwater Analytical Results

The PFAS groundwater analytical results from this sampling event are presented in **Table T5** in **Appendix B**. In summary, 80 primary groundwater samples were analysed for PFAS compounds, with concentrations of:

- PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 72 primary samples
- PFOS+PFHxS and/or PFOA exceeded the adopted human health screening criteria in 62 primary samples
- PFOS and/or PFOA exceeded the adopted ecological screening criteria in 64 primary samples.

Deviations from the historical dataset are reported in **Table 9** and graphically on **Figure F6** in **Appendix A**.

Table 9 Deviations from Historical Dataset: Groundwater

Deviation Type	Groundwater sampling location	PFOS+PFHxS (µg/L)		PFOA (µg/L)		PFOS (µg/L)	
		Nov 2022	Previous maximum	Nov 2022	Previous maximum	Nov 2022	Previous maximum
First-time detections of PFOS+PFHxS PFOS and/or PFOA in groundwater	MW078	There were no first-time detections in the dataset.		0.01	<LOR	There were no first-time detections in the dataset.	
New exceedance of the NEMP (HEPA, 2020) drinking water guidelines in groundwater	n/a	There were no new exceedances of the NEMP Human Health Screening Criteria in the dataset.		There were no new exceedances of the NEMP Human Health Screening Criteria in the dataset.		There are no applicable NEMP Human Health Screening Criteria.	
New exceedance of the NEMP (HEPA, 2020) Freshwater 99% guidelines in groundwater	n/a	There are no applicable NEMP Ecological Screening Criteria (99%).		There were no new exceedances of the NEMP Ecological Screening Criteria in the dataset (99%).		There were no new exceedances of the NEMP Ecological Screening Criteria in the dataset (99%).	
Legend							
Blue Shading	Blue shading indicates sampling location with first-time detection of PFOS+PFHxS, PFOS and/or PFOA						
Yellow Shading	Yellow shading indicates sampling location with first-time exceedance of NEMP Human Health and/or Ecological Screening Criteria						

The non-PFAS groundwater analytical results from this sampling event are presented in **Table T5** in **Appendix B**, and are summarised below:

- Anions (total) ranged from 1.77 milliequivalents per litre (meq/L) (MW091) to 56.1 meq/L (MW009)
- Cations (total) ranged from 1.94 meq/L (MW091) to 56.1 meq/L (MW009)
- Ammonia (as N) ranged from <LOR (MW001, MW075) to 220 µg/L (MW022)
- Nitrite + Nitrate (as N) ranged from 0.01 mg/L (MW001) to 4.13 mg/L (MW091)
- Phosphorous / Phosphate as P ranged from 0.02 mg/L (MW010) to 0.82 mg/L (MW022)
- Aluminium ranged from <LOR (MW001, MW009, MW010, MW022, MW081) to 0.18 mg/L (MW091)
- Bromine ranged from 300 (MW091) to 5,800 µg/L (MW009)
- Iron ranged from <LOR (MW001, MW009, MW010) to 4.1 mg/L (MW022)
- Manganese ranged from 0.006 mg/L (MW091) to 2.4 mg/L (MW009).

5.3.2 Surface Water Analytical Results

The PFAS surface water analytical results from this sampling event are presented in **Table T6** in **Appendix B**. In summary, 20 primary surface water samples were analysed for PFAS compounds, with concentrations of:

- PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 18 primary samples
- PFOS+PFHxS and/or PFOA exceeded the adopted human health screening criteria in 4 primary samples
- PFOS and/or PFOA exceeded the adopted ecological screening criteria in 18 primary samples.

Deviations from the historical dataset are provided in **Table 10** and on **Figure F7** in **Appendix A**.

Table 10 Deviations from Historical Dataset - Surface Water

Deviation Type	Surface water sampling location	Sum of PFOS+PFHxS (µg/L)		PFOA (µg/L)		PFOS (µg/L)	
		Nov 2022	Previous maximum	Nov 2022	Previous maximum	Nov 2022	Previous maximum
First-time detections of PFOS+PFHxS PFOS and/or PFOA in surface water	SW016	There were no first-time detections in the dataset.		0.02	<LOR	There were no first-time detections in the dataset.	
New exceedance of the NEMP (HEPA, 2020) recreational guidelines in surface water	n/a	There were no new exceedances of the NEMP Human Health Screening Criteria (Recreational) in the dataset.		There were no new exceedances of the NEMP Human Health Screening Criteria (Recreational) in the dataset.		There are no applicable NEMP Human Health Screening Criteria (Recreational).	
New exceedance of the NEMP (HEPA, 2020) Freshwater 99% guidelines in surface water	n/a	There are no applicable NEMP Ecological Screening Criteria (99%).		There were no new exceedances of the NEMP Ecological Screening Criteria in the dataset (99%).		There were no new exceedances of the NEMP Ecological Screening Criteria in the dataset (99%).	
Legend							
Blue Shading	Blue shading indicates sampling location with first-time detection of PFOS+PFHxS, PFOS and/or PFOA						
Yellow Shading	Yellow shading indicates sampling location with new exceedance of NEMP Human Health and/or Ecological Screening Criteria						

Deviation Type	Surface water sampling location	Sum of PFOS+PFHxS (µg/L)		PFOA (µg/L)		PFOS (µg/L)	
		Nov 2022	Previous maximum	Nov 2022	Previous maximum	Nov 2022	Previous maximum
N/A	Not applicable – no historical data available.						
Note: SW016 PFOA first time detection was recorded in both the primary and intra-laboratory sample.							

The non-PFAS surface water analytical results from this sampling event are presented in **Table T6** in **Appendix B**, and are summarised below:

- Anions (total) ranged from 1.43 meq/L (SW024) to 25 meq/L (SW015)
- Cations (total) ranged from 1.56 meq/L (SW024) to 23.5 meq/L (SW015)
- Ammonia (as N) ranged from 20 (SW020, SW024) to 620 µg/L (SW008)
- Nitrite + Nitrate (as N) ranged from <LOR mg/L (SW020) to 1.8 mg/L (SW022)
- Phosphorous / Phosphate as P ranged from 0.03 mg/L (SW024) to 0.23 mg/L (SW003)
- Aluminium ranged from 0.01 (SW015, SW016) to 1.05 mg/L (SW009)
- Bromine ranged from 100 (SW024) to 1,700 µg/L (SW015)
- Iron ranged from 0.07 (SW015) to 3.98 mg/L (SW003)
- Manganese ranged from 0.012 mg/L (SW0241) to 1.39 mg/L (SW008).

5.3.3 Sediment Analytical Results

The PFAS sediment analytical results from this sampling event are presented in **Table T7** in **Appendix B**. In summary, 20 primary sediment samples were analysed for PFAS compounds, with concentrations of PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 18 primary samples.

There were no first-time detections for PFOS+PFHxS, PFOS and/or PFOA, in the sediment samples analysed.

5.4 Historical Sampling Data

Historical groundwater, surface water and sediment sampling data are presented in **Tables T8**, **T9** and **T10** (respectively) in **Appendix B**.

6.0 Summary and Next Sampling Events

6.1 Summary of Monitoring Event

The November 2022 biannual sampling event was completed between 2 and 21 November 2022. The findings and the recommended actions are summarised in **Table 11** below.

Table 11 Summary of Sampling Event

Item	Comment	Recommended Action
Access to sampling locations	The following were accessed and able to be sampled: • 80 groundwater locations • 20 surface water locations • 20 sediment locations	Nil.
Location unable to be located, inaccessible or dry	Samples from three monitoring wells (MW044, MW097 and MW098) were not collected as the locations were unable to be located despite multiple attempts being made and the use of a surveyor. Samples from one monitoring well (MW086) were not collected as the location was inaccessible due to the placement of a soil stockpile over the well. Samples from one co-located surface water / sediment location (SW081 / SD081) were not collected as the access road to the locations was closed for rectification works required following a landslide.	AECOM will attempt to access and sample locations MW086 and SW001, SW081 and SD081 during the next scheduled sampling event. Additionally, AECOM is currently investigating alternative access arrangements to Bakers Lagoon. AECOM proposes the removal of MW044, MW097 and MW098 from the OMP program as the wells are believed to have been destroyed. AECOM will discuss the potential replacement of monitoring wells MW097 and MW098 (with new wells of similar construction) with Defence's Lead Consultant, as the lack of data from these wells presents a data gap in coverage of the area. AECOM does not consider it necessary to replace MW044 as other existing monitoring wells in the vicinity of MW044 provide sufficient coverage of the area.

Item	Comment	Recommended Action
Monitoring well network condition	All monitoring wells that were able to be accessed were noted to be in good condition, with the exception of some with damaged monuments or gatics, and/or missing lids or J-caps. Additionally, some wells had water in the well gatic, with the water either above or below TOC.	AECOM proposes to mobilise ahead of the next sampling event to repair damaged monuments. AECOM will attempt to replace any missing or damaged lids, bolts and J-caps during the next scheduled sampling event.
Analytical Results	80 groundwater primary samples, 20 surface water primary samples and 20 sediment primary samples were analysed.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time. The requirement to collect and analyse non-PFAS data was re-assessed in conjunctions with Defence's Lead Consultant (AECOM), and it was determined that it is no longer required and that it can be removed from the OMP scope of works ahead of the next sampling event in May 2023.
First-time detections of PFOS+PFHxS, PFOS and/or PFOA	One of 80 monitoring wells sampled (MW078) reported first-time detections of PFOS+PFHxS, PFOS and/or PFOA. One of 20 surface water locations sampled (SW016) reported first-time detections of PFOS+PFHxS, PFOS and/or PFOA. No sediment locations sampled reported first-time detections of PFOS+PFHxS, PFOS and/or PFOA.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
New exceedance of adopted human health screening criteria	No groundwater or surface water locations sampled reported new exceedances of the adopted human health screening criteria for PFOS+PFHxS and/or PFOA.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
New exceedance of adopted ecological screening criteria	No groundwater or surface water locations sampled reported new exceedances of the adopted ecological screening criteria for PFOS and/or PFOA.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.

6.2 Upcoming Sampling Events

The next OMP sampling event is scheduled for May 2023.

6.3 Upcoming Annual Interpretive Report

The next annual interpretive report is scheduled to be delivered in Q2 2023.

7.0 References

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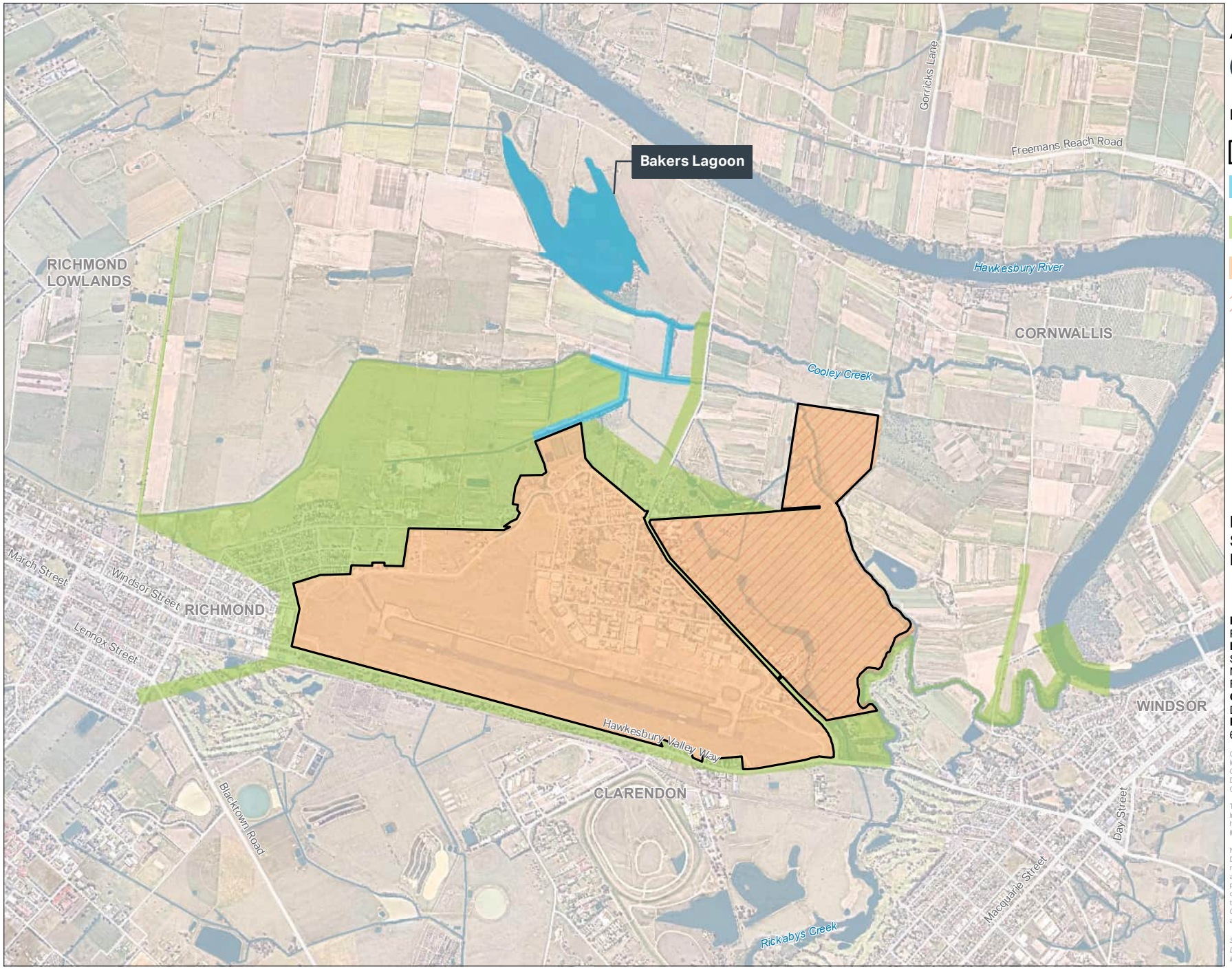
Appendix A

Figures



AECOM

N

0 300 600 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

FIGURE F1:
SITE LOCATION AND MANAGEMENT AREAS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
November 2022
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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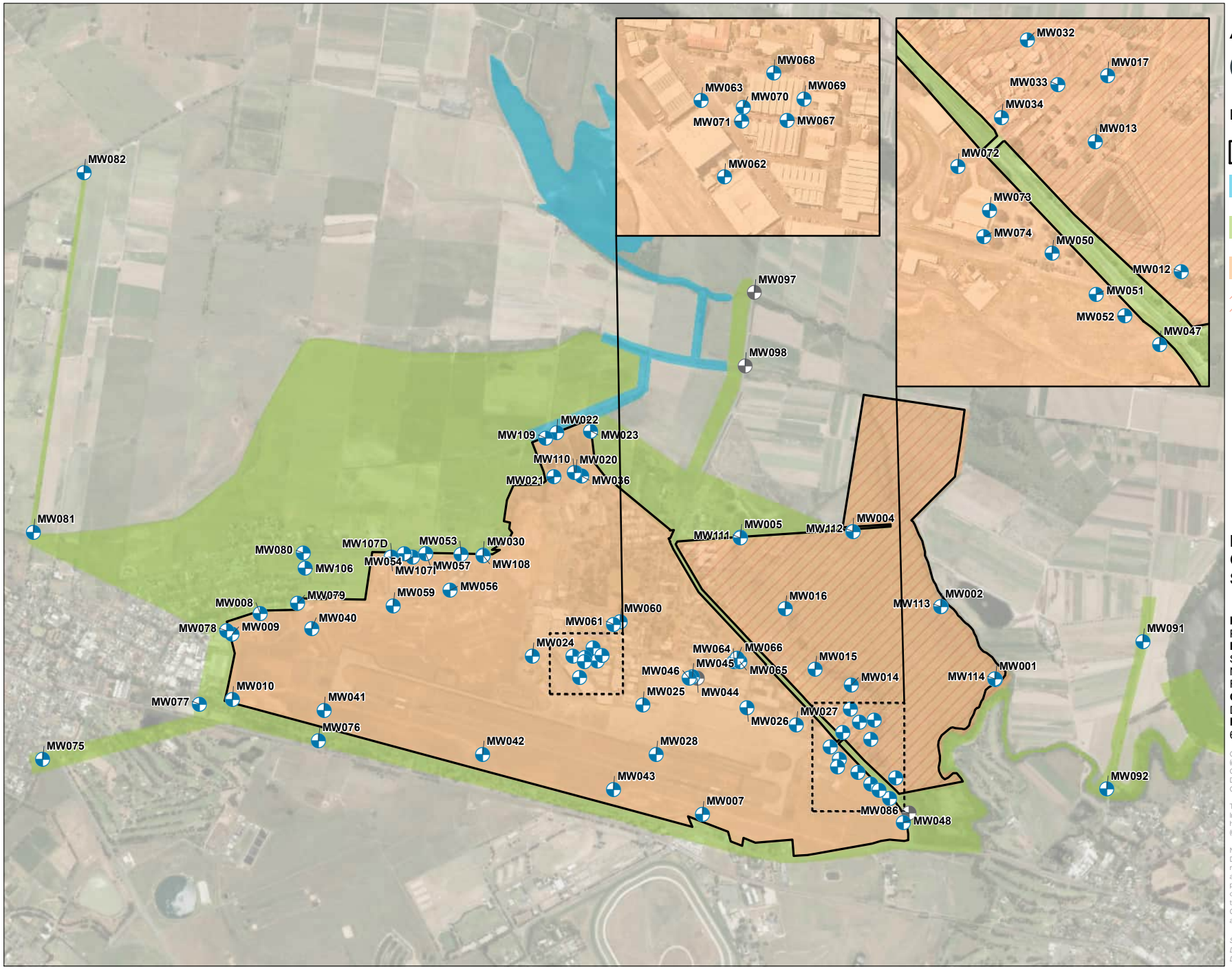

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Location (sampled)
- Groundwater Location (not sampled)

FIGURE F2:
GROUNDWATER SAMPLING LOCATIONS

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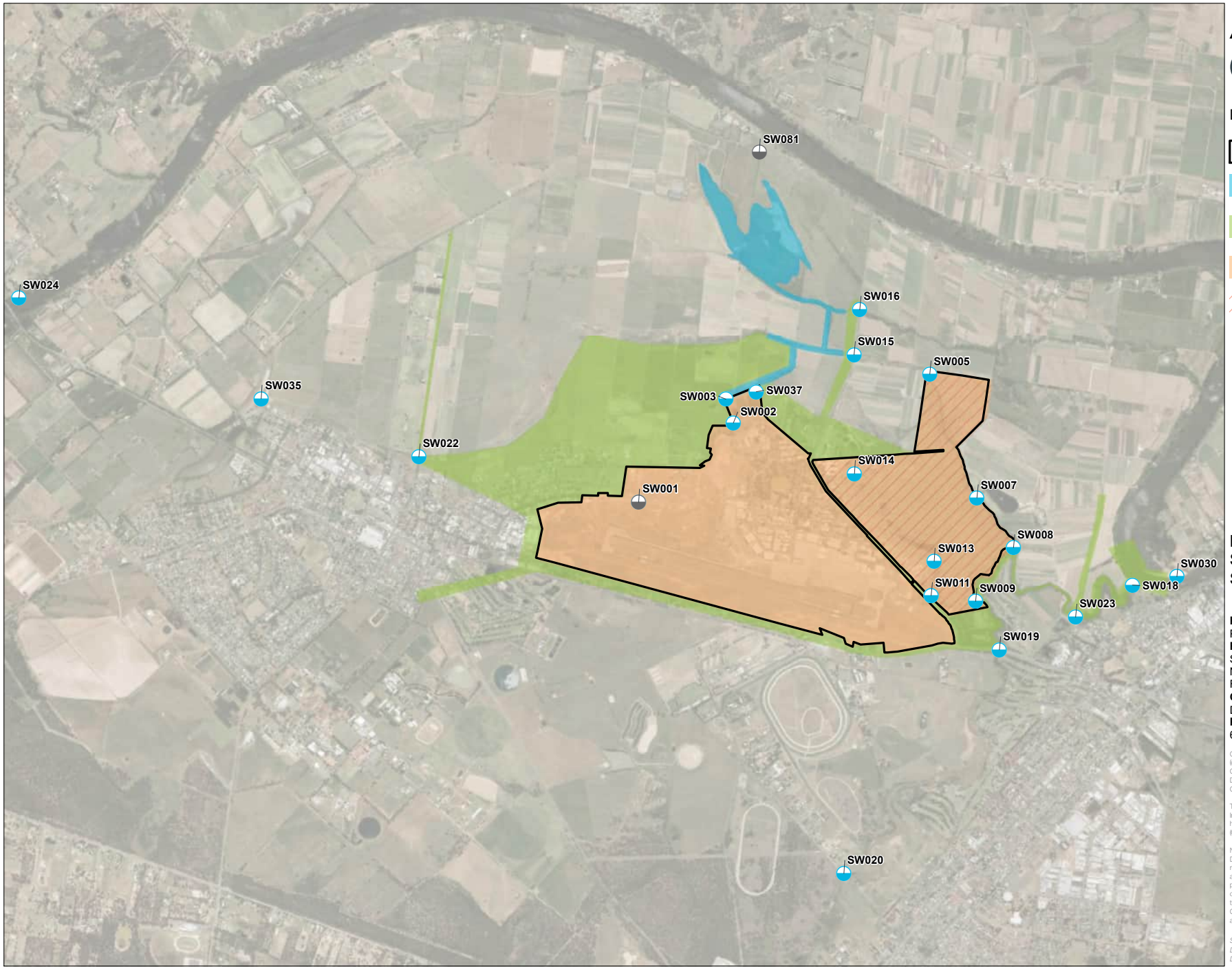

AECOM

N

0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Surface Water Location (sampled)
- Surface Water Location (not sampled)

FIGURE F3:
SURFACE WATER SAMPLING LOCATIONS

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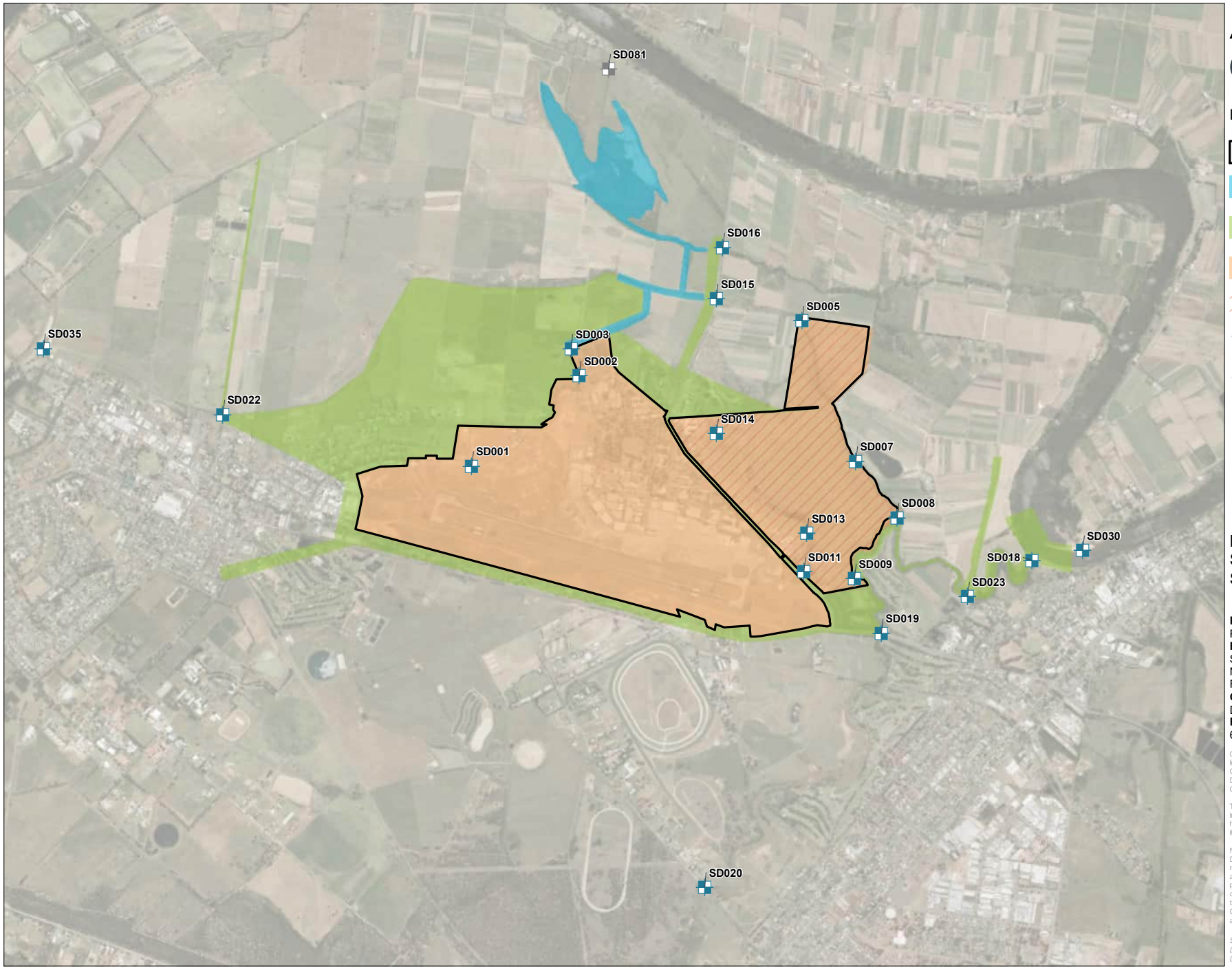

AECOM

N

0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Sediment Location (sampled)
- Sediment Location (not sampled)

FIGURE F4:
SEDIMENT SAMPLING LOCATIONS

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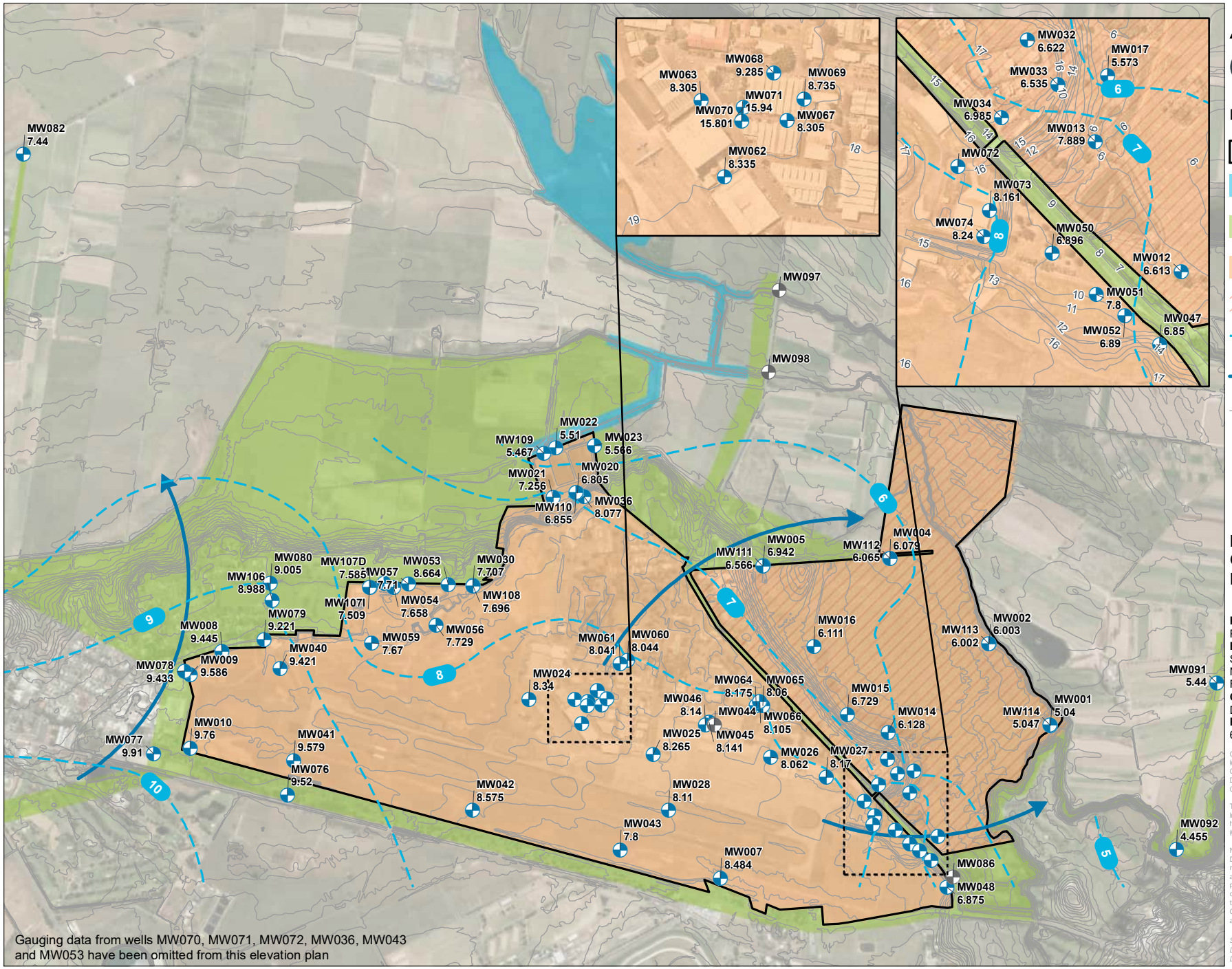

AECOM

N

0 200 400 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Contours (mAHD)
- Inferred Groundwater Flow Direction
- 1m Contour
- Groundwater Location (gauged)
- Groundwater Location (not gauged or accessed)

FIGURE F5:
GROUNDWATER ELEVATION PLAN

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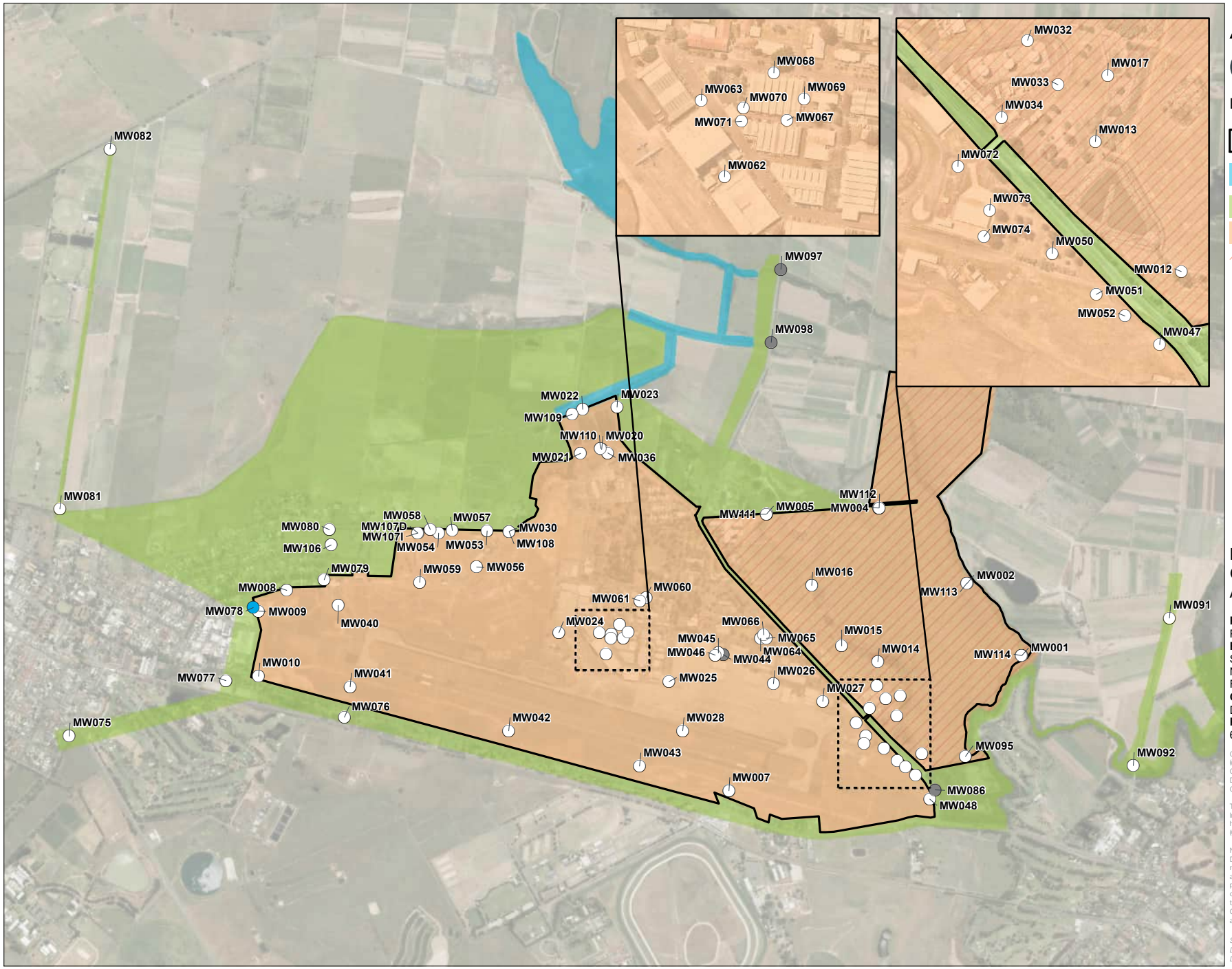

AECOM

N

0 200 400 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- First-time detection of PFOS+PFHxS, PFOS and/or PFOA
- Sampled, no first-time detection or exceedance
- Location not accessed and/or sampled

FIGURE F6:
GROUNDWATER ANALYTICAL RESULTS

PROJECT NAME:
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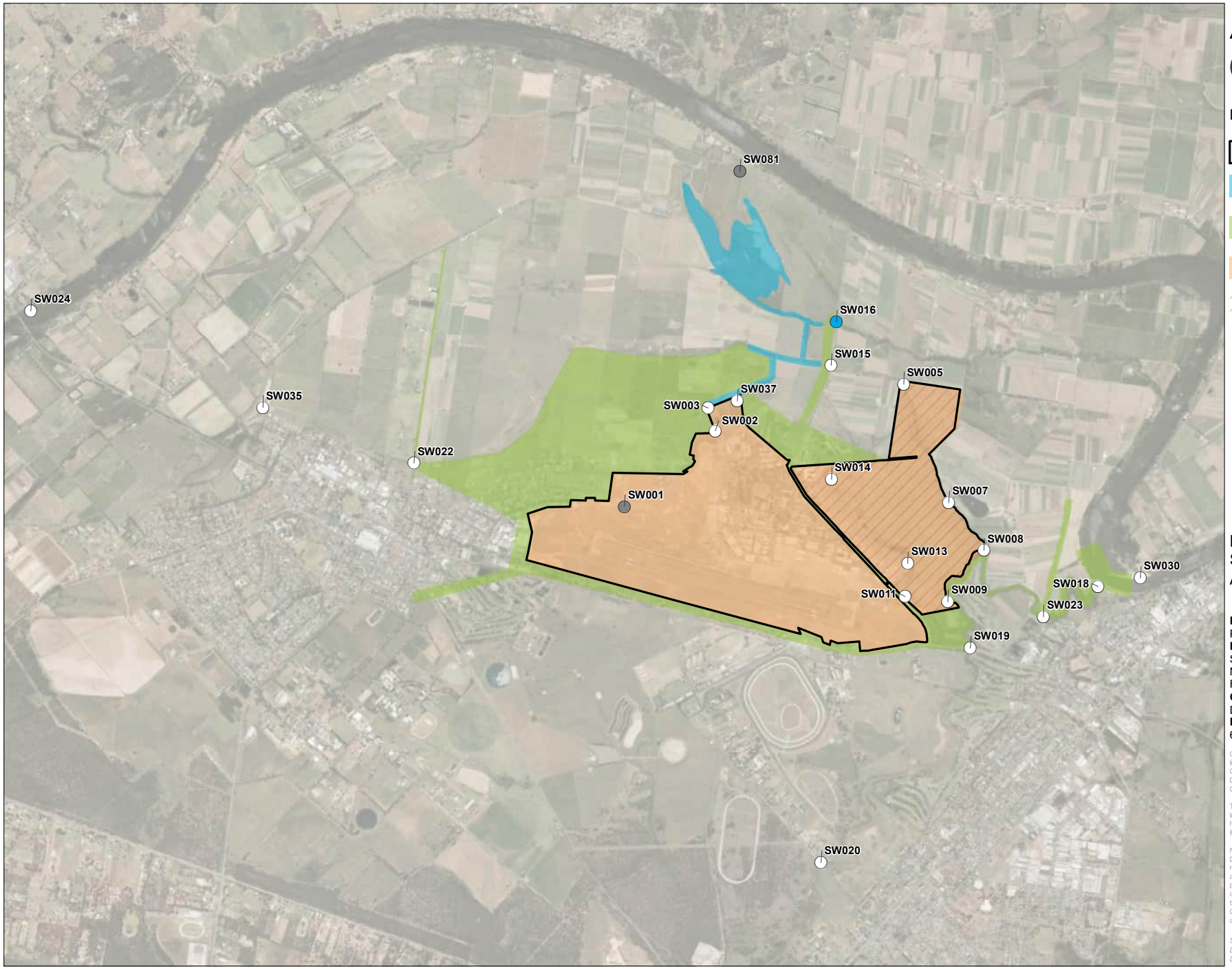

AECOM

N

0 400 800 m

Legend

- Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- First time detection of PFOS+PFHxS and/or PFOA
- Sampled, no first-time detection or exceedance
- Location not accessed and/or sampled

FIGURE F7:
SURFACE WATER ANALYTICAL RESULTS

PROJECT NAME:
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Appendix B

Tables

Table T1 Groundwater Gauging

AECOM

Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	HydraSleeve Collar Depth (mbTOC)	Visit / Gauging Date Time	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit / Gauging Comment
MW001	MW01	10.052	5.5	8.5	7	11/11/2022 12:12	5.012	5.040	7.40	Good condition.
MW002	MW02	9.860	5.9	8.9	8	11/11/2022 11:18	3.857	6.003	9.77	Good condition.
MW004	MW04	7.180	9.3	12.3	11	11/11/2022 9:44	1.101	6.079	12.90	Good condition. No J-cap.
MW005	MW05	9.113	unknown	unknown	n/a	11/11/2022 9:05	2.171	6.942	9.91	Good condition. No Hydrasleeve present.
MW007	MW07	16.030	8.8	11.8	n/a	2/11/2022 13:28	7.546	8.484	11.70	Good condition. No Hydrasleeve present.
MW008	MW08	20.930	12	15	14	2/11/2022 9:04	11.485	9.445	16.10	Good condition.
MW009	MW09	20.440	unknown	unknown	12	2/11/2022 9:30	10.854	9.586	13.12	Good condition. No Hydrasleeve present. Hydrasleeve installed for next round.
MW010	MW10	21.060	17.9	20.9	n/a	2/11/2022 12:00	11.300	9.760	21.78	Good condition. No Hydrasleeve present.
MW012	MW12	6.640	1	4	n/a	18/11/2022 9:25	0.027	6.613	4.19	Monument bent, obstructed at ground level when using bailer. No Hydrasleeve present.
MW013	MW13	7.930	4	7	5	18/11/2022 11:12	0.041	7.889	6.06	Good condition.
MW014	MW14	6.240	5.3	8.3	7	18/11/2022 12:08	0.112	6.128	9.42	Good condition.
MW015	MW15	7.020	5.5	8.5	7.5	18/11/2022 12:28	0.291	6.729	8.98	Good condition.
MW016	MW16	7.390	2	5	4	11/11/2022 8:21	1.279	6.111	5.98	Good condition.
MW017	MW17	6.510	unknown	unknown	3.5	18/11/2022 11:49	0.937	5.573	4.84	Good condition.
MW020	MW20	8.945	unknown	unknown	n/a	8/11/2022 11:45	2.140	6.805	6.61	Good condition. No Hydrasleeve present.
MW021	MW21	7.880	unknown	unknown	2.5	8/11/2022 11:15	0.624	7.256	3.48	Good condition.
MW022	MW22	6.030	unknown	unknown	2	8/11/2022 9:45	0.520	5.510	3.09	Monument bent, monument lid sheared off.
MW023	MW23	6.010	unknown	unknown	3.5	8/11/2022 10:39	0.444	5.566	4.28	Good condition.
MW024	MW24	19.920	12	15	13	2/11/2022 16:03	11.580	8.340	16.38	Good condition. Gatic full of water below top of casing.
MW025	MW25	17.140	16.1	20.1	16.5	7/11/2022 10:31	8.875	8.265	20.37	Good condition.
MW026	MW26	16.900	9.2	12.2	10	7/11/2022 11:45	8.838	8.062	12.04	Good condition. Gatic full of water below top of casing.
MW027	MW27	16.420	10.2	13.2	12	2/11/2022 15:39	8.250	8.170	13.40	Good condition.
MW028	MW28	16.900	8.2	11.2	10	2/11/2022 15:10	8.790	8.110	11.17	Good condition. Gatic full of water below top of casing.
MW030	MW30	21.262	12.5	17.5	15.5	11/11/2022 7:05	13.555	7.707	16.98	Good condition.
MW032	MW32	17.810	11.85	14.85	n/a	10/11/2022 10:30	11.188	6.622	14.30	Good condition. Gatic full of water below top of casing. No Hydrasleeve present.
MW033	MW33	14.840	9.5	12.5	n/a	10/11/2022 10:44	8.305	6.535	12.47	Good condition. Gatic full of water below top of casing. No Hydrasleeve present.
MW034	MW34	16.930	14	17	16	10/11/2022 10:12	9.945	6.985	16.86	Good condition. Gatic full of water below top of casing.
MW036	MW36	20.820	17.8	21.8	18	8/11/2022 12:15	12.743	8.077	22.25	Good condition.
MW040	MW40	19.520	15	18	17	2/11/2022 8:37	10.099	9.421	17.84	Gatic damaged.
MW041	MW41	19.730	13.6	16.6	n/a	2/11/2022 12:17	10.151	9.579	16.46	Good condition. No Hydrasleeve present.
MW042	MW42	18.320	13.3	16.3	14.5	2/11/2022 12:43	9.745	8.575	16.22	Good condition.
MW043	MW43	16.450	14.9	17.9	n/a	2/11/2022 13:06	8.650	7.800	17.85	Good condition. No Hydrasleeve present.
MW044	MW44	16.850	14.8	17.8	n/a	07/11/2022 11:05	n/a	n/a	n/a	Unable to locate.
MW045	MW45	16.740	14.9	17.9	16	18/11/2022 8:55	8.599	8.141	17.83	Good condition.
MW046	MW46	16.710	14.9	17.9	17	7/11/2022 11:25	8.570	8.140	17.93	Good condition
MW047	MW47	13.780	9	12	n/a	2/11/2022 14:03	6.930	6.850	11.41	Good condition. No Hydrasleeve present.
MW048	MW48	17.620	10.3	13.3	12	2/11/2022 13:46	10.745	6.875	14.30	Good condition.
MW050	MW50	10.200	unknown	unknown	n/a	2/11/2022 14:52	3.304	6.896	7.97	Good condition. No Hydrasleeve present.
MW051	MW51	10.300	1.5	4.5	n/a	2/11/2022 14:37	2.500	7.800	5.14	No monument lid and j-cap. J-cap replaced. No Hydrasleeve present.
MW052	MW52	10.710	6	9	n/a	2/11/2022 14:20	3.820	6.890	9.43	Good condition. No J-cap present. J-cap replaced. No Hydrasleeve present.
MW053	MW53	20.950	13.5	16.5	n/a	10/11/2022 17:20	12.286	8.664	16.53	Good condition. No Hydrasleeve present.
MW054	MW54	24.310	14.9	17.9	17	10/11/2022 16:42	16.652	7.658	19.09	Good condition.
MW056	MW56	19.390	11.5	16.1	n/a	7/11/2022 8:46	11.661	7.729	15.66	Good condition. No Hydrasleeve present.
MW057	MW57	22.920	14.2	19.2	n/a	10/11/2022 17:03	15.210	7.710	21.31	Good condition. No Hydrasleeve present.
MW058	MW58	22.823	14.7	19.2	n/a	10/11/2022 16:25	15.275	7.548	20.44	Good condition. No Hydrasleeve present.
MW059	MW59	20.740	14.7	19.2	n/a	7/11/2022 9:04	13.070	7.670	16.72	Good condition.
MW060	MW60	17.890	12.8	15.8	n/a	7/11/2022 9:48	9.846	8.044	15.68	Good condition. No Hydrasleeve present.
MW061	MW61	18.390	10.5	13.5	n/a	7/11/2022 10:08	10.349	8.041	13.14	Good condition. No Hydrasleeve present.
MW062	MW62	18.910	11.5	14.5	12.6	3/11/2022 15:54	10.575	8.335	13.61	Good condition.
MW063	MW63	19.620	12	14.4	13	3/11/2022 15:32	11.315	8.305	14.99	Bolts rusted into lid but unlocked. Gatic full of water below top of casing.
MW064	MW64	17.860	10.2	14.2	13	2/11/2022 11:15	9.685	8.175	14.52	Good condition. Gatic full of water above top of casing. Drained prior to opening well cap.
MW065	MW65	17.950	10	13	12	2/11/2022 10:50	9.890	8.060	13.15	Good condition.
MW066	MW66	18.030	11	15	13.5	2/11/2022 10:33	9.925	8.105	14.96	Good condition.
MW067	MW67	18.600	11.7	14.7	13.5	3/11/2022 14:52	10.295	8.305	15.95	Good condition.
MW068	MW68	19.050	11.9	14.9	12.5	3/11/2022 13:50	9.765	9.285	15.01	Good condition
MW069	MW69	19.030	13	16	14	3/11/2022 15:09	10.295	8.735	15.43	Good condition.
MW070	MW70	19.400	2.3	5.3	4.3	3/11/2022 14:18	3.599	15.801	5.32	Good condition.
MW071	MW71	19.150	2	5	4	3/11/2022 14:32	3.210	15.940	5.10	Good condition.
MW072	MW72	7.020	unknown	unknown	n/a	10/11/2022 9:47	7.074	-0.054	13.08	Good condition. No J-cap present, J-cap replaced. No Hydrasleeve present.

Table T1 Groundwater Gauging

AECOM

Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	HydraSleeve Collar Depth (mbTOC)	Visit / Gauging Date Time	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit / Gauging Comment
MW073	MW73	15.331	10	13	n/a	10/11/2022 9:27	7.170	8.161	11.89	Good condition. No Hydrasleeve present.
MW074	MW74	15.630	10	14	12.5	10/11/2022 9:36	7.390	8.240	13.13	Good condition. No Hydrasleeve present. Hydrasleeve installed for next round.
MW075	MW75	18.097	12	15	13	8/11/2022 13:10	7.430	10.667	14.34	Good condition.
MW076	MW76	19.540	15	18	16	10/11/2022 15:14	10.020	9.520	17.50	Good condition.
MW077	MW77	19.942	19.5	22	20	10/11/2022 15:42	10.032	9.910	21.79	Gatic damanged, lid cracked in half.
MW078	MW78	19.807	15	18	n/a	8/11/2022 13:45	10.374	9.433	17.35	Good condition. No Hydrasleeve present.
MW079	MW79	20.453	15	18	17	8/11/2022 15:04	11.232	9.221	17.89	Good condition.
MW080	MW80	22.779	21	24	22	8/11/2022 14:28	13.774	9.005	24.02	Good condition.
MW081	MW81	7.376	2.6	5.6	4.5	3/11/2022 9:35	0.000	7.376	5.62	Good condition. J-cap dislogded. Gatic full of water below top of casing.
MW082	MW82	8.781	3	6	5	18/11/2022 10:10	1.341	7.440	5.73	Good condition.
MW086	MW86	10.387	3.6	6.6	n/a	08/11/2022 15:20	n/a	n/a	n/a	Unable to access, under soil stockpile.
MW091	MW91	8.345	3.5	6.5	5	7/11/2022 15:36	2.905	5.440	6.46	Good condition.
MW092	MW92	8.995	19	22	20	7/11/2022 15:21	4.540	4.455	22.57	Good condition.
MW097	MW97	6.465	4.3	7.3	n/a	10/11/2022 13:55	n/a	n/a	n/a	Unable to locate.
MW098	MW98	5.511	5.8	8.8	n/a	10/11/2022 14:20	n/a	n/a	n/a	Unable to locate.
MW106		22.738	28	31	28	8/11/2022 14:14	13.750	8.988	29.84	Good condition.
MW107D		22.973	27.5	30.5	28	10/11/2022 11:55	15.415	7.558	31.19	Good condition. Gatic full of water below top of casing.
MW107I		22.860	21.8	24.8	23.5	10/11/2022 12:10	15.291	7.569	25.50	Good condition.
MW108		21.316	24.5	27.5	26	11/11/2022 7:17	13.620	7.696	28.92	Good condition.
MW109		6.205	10.4	13.4	12.5	8/11/2022 9:13	0.738	5.467	13.35	Good condition
MW110		7.644	11.5	14.5	13	8/11/2022 11:29	0.789	6.855	-	Good condition.
MW111		9.422	16	19	18	11/11/2022 9:11	2.856	6.566	17.30	Good condition.
MW112		6.791	12.2	15.2	14	11/11/2022 9:57	0.726	6.065	15.49	Good condition.
MW113		9.443	16	19	18	11/11/2022 11:27	3.441	6.002	19.68	Good condition.
MW114		9.698	16.1	19.1	18	11/11/2022 12:23	4.651	5.047	19.76	Good condition.

Notes

mbTOC	meters below Top of Casing
mAHD	meters Australian Height Datum
n/a	Not applicable
-	Not measured

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Table T2 - Groundwater Geochemical Parameters and Observations

				Field Measurements					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
Location Code	**Alternative Name**	**Sampled Date Time**	**Sample Comment**	mg/L	°C	µS/cm	pH Units	mV	mV
MW001	MW01	11/11/2022 12:10	Light brown, low turbidity, no odour, no sheen.	2.01	23.3	867.0	6.56	80.1	285.9
MW002	MW02	11/11/2022 11:15	Clear, no turbidity, no odour, no sheen.	2.26	21.6	1602.0	6.87	42.4	248.2
MW004	MW04	11/11/2022 9:38	Light brown, low turbidity, no odour, no sheen.	1.74	19.2	1399.0	6.49	32.2	238.0
MW005	MW05	11/11/2022 9:00	Clear, no turbidity, no odour, no sheen.	2.21	18.6	15124.0	6.46	55.8	261.6
MW007	MW07	2/11/2022 13:27	Ligh yellow, low turbidity, no odour, no sheen.	4.33	20.1	471.5	6.31	113.9	319.7
MW008	MW08	2/11/2022 9:02	Ligh yellow, low turbidity, no odour, no sheen. Silt at base of Hydrasleeve.	1.03	22.0	3215.0	6.59	29.4	235.2
MW009	MW09	2/11/2022 9:25	Light grey, low turbidity, no odour, no sheen.	1.87	20.9	6507.0	6.18	173.6	379.4
MW010	MW10	2/11/2022 11:58	Clear, no turbidity, no odour, no sheen.	2.09	22.0	1019.0	6.46	67.6	273.4
MW012	MW12	18/11/2022 9:20	Clear, no turbidity, no odour, no sheen.	1.71	19.1	2936.0	6.18	55.1	260.9
MW013	MW13	18/11/2022 11:10	Light brown, low turbidity, no odour, no sheen.	1.55	20.2	915.0	6.21	34.1	239.9
MW014	MW14	18/11/2022 12:05	Clear, no turbidity, no odour, no sheen.	1.38	24.4	646.0	6.89	60.9	266.7
MW015	MW15	18/11/2022 12:25	Light grey, low turbidity, no odour, no sheen.	1.97	22.6	67.6	6.58	-4.2	201.6
MW016	MW16	11/11/2022 8:20	Light brown, low turbidity, no odour, no sheen.	2.04	17.8	1446.0	7.60	67.0	272.8
MW017	MW17	18/11/2022 11:48	Clear, no turbidity, no odour, no sheen.	1.55	19.2	3110.0	7.15	61.8	267.6
MW020	MW20	8/11/2022 11:44	Light brown, low turbidity, no odour, no sheen.	0.94	20.1	2201.0	6.96	43.2	249.0
MW021	MW21	8/11/2022 11:14	Light brown, low turbidity, no odour, no sheen.	1.60	20.7	503.0	6.54	26.5	232.3
MW022	MW22	8/11/2022 9:40	Light brown, low turbidity, no odour, no sheen.	2.52	24.9	2938.0	6.93	-57.3	148.5
MW023	MW23	8/11/2022 10:38	Ligh yellow, low turbidity, no odour, no sheen.	1.19	19.5	831.0	6.83	56.9	262.7
MW024	MW24	2/11/2022 15:59	Light brown, low turbidity, no odour, no sheen.	1.03	21.4	2656.0	6.31	90.0	295.8
MW025	MW25	7/11/2022 10:23	Clear, low turbidity, no odour, no sheen. Silt at base of Hydrasleeve.	2.46	21.6	2121.0	6.44	79.9	285.7
MW026	MW26	7/11/2022 11:40	Light brown, low turbidity, no odour, no sheen.	2.87	23.2	428.1	6.70	95.5	301.3
MW027	MW27	2/11/2022 15:38	Ligh yellow, medium turbidity, no odour, no sheen.	2.62	20.3	3591.0	6.27	107.7	313.5
MW028	MW28	2/11/2022 15:07	Light brown, low turbidity, no odour, no sheen.	2.51	19.6	1797.0	7.73	38.1	243.9
MW030	MW30	11/11/2022 7:00	Light grey, low turbidity, no odour, no sheen.	1.15	18.5	926.0	6.37	50.2	256.0
MW032	MW32	10/11/2022 10:25	Light brown, low turbidity, no odour, no sheen.	2.82	22.1	1148.0	6.98	61.1	266.9
MW033	MW33	10/11/2022 10:40	Clear, no turbidity, no odour, no sheen.	5.59	22.1	104.5	7.57	63.7	269.5
MW034	MW34	10/11/2022 10:08	Clear, low turbidity, no odour, biosheen.	2.58	21.8	903.0	7.08	-23.6	182.2
MW036	MW36	8/11/2022 12:14	Light brown, low turbidity, no odour, no sheen.	1.55	21.8	1379.0	6.59	94.2	300.0
MW040	MW40	2/11/2022 8:33	Light grey, low turbidity, sulfurous odour, no sheen.	1.56	18.3	954.0	6.18	-62.3	143.5
MW041	MW41	2/11/2022 12:15	Ligh yellow, low turbidity, no odour, no sheen.	1.20	19.9	145.8	6.69	87.9	293.7
MW042	MW42	2/11/2022 12:43	Light grey, low turbidity, no odour, no sheen.	0.89	19.6	1926.0	6.18	88.7	294.5
MW043	MW43	2/11/2022 13:02	Light brown, low turbidity, no odour, no sheen. Suspended solids present.	0.93	19.4	121.5	6.48	66.3	272.1
MW044	MW44	n/a	Unable to locate.	n/a	n/a	n/a	n/a	n/a	n/a
MW045	MW45	21/11/2022 8:50	Light brown, low turbidity, no odour, no sheen.	2.64	20.0	671.0	6.49	-12.2	193.6
MW046	MW46	7/11/2022 11:16	Light brown, low turbidity, no odour, no sheen.	2.47	26.8	1475.0	6.45	39.4	245.2
MW047	MW47	2/11/2022 14:00	Light grey, no turbidity, no odour, no sheen.	5.99	20.3	536.0	7.48	85.0	290.8
MW048	MW48	2/11/2022 13:45	Light brown, low turbidity, no odour, no sheen.	1.86	22.2	1918.0	6.84	91.2	297.0
MW050	MW50	2/11/2022 14:49	Brown/orange, medium turbidity, organic odour, no sheen. Brown-orange algae suspended in water.	1.65	17.7	927.0	7.07	33.0	238.8
MW051	MW51	2/11/2022 14:30	Light grey, no turbidity, no odour, no sheen.	1.22	18.4	984.0	7.02	-102.1	103.7
MW052	MW52	2/11/2022 14:16	Clear, no turbidity, no odour, no sheen.	1.64	18.8	577.0	6.82	105.1	310.9
MW053	MW53	10/11/2022 17:15	Clear, low turbidity, no odour, no sheen.	4.19	20.6	411.2	7.10	24.3	230.1
MW054	MW54	10/11/2022 16:40	Clear, no turbidity, no odour, no sheen.	2.00	22.2	1564.0	6.74	84.7	290.5
MW056	MW56	7/11/2022 8:45	Light brown, low turbidity, no odour, no sheen.	2.22	20.6	2504.0	5.95	165.8	371.6
MW057	MW57	10/11/2022 17:00	Clear, low turbidity, no odour, no sheen.	2.14	22.3	896.0	6.57	93.3	299.1
MW058	MW58	10/11/2022 16:20	Light brown, low turbidity, no odour, no sheen.	1.28	23.5	1478.0	6.18	104.9	310.7
MW059	MW59	7/11/2022 9:01	Light brown, low turbidity, no odour, no sheen.	2.17	20.9	4330.0	6.14	157.2	363.0
MW060	MW60	7/11/2022 9:46	Clear, low turbidity, no odour, no sheen.	3.71	23.2	379.6	6.68	136.2	342.0
MW061	MW61	7/11/2022 10:05	Clear, no turbidity, no odour, no sheen.	1.18	23.6	567.0	6.28	-11.2	194.6
MW062	MW62	3/11/2022 15:52	Ligh yellow, low turbidity, no odour, no sheen.	5.51	21.9	7084.0	6.90	68.7	274.5
MW063	MW63	3/11/2022 15:29	Light brown, low turbidity, no odour, no sheen.	2.51	22.7	2716.0	6.06	50.4	256.2
MW064	MW64	2/11/2022 11:10	Light brown, low turbidity, hydrocarbon odour, no sheen.	0.37	20.6	1340.0	6.89	-151.6	54.2
MW065	MW65	2/11/2022 10:48	Light brown, low turbidity, no odour, no sheen. Silt at base of Hydrasleeve.	0.67	20.1	787.0	6.58	-104.1	101.7
MW066	MW66	2/11/2022 10:32	Light brown, low turbidity, no odour, no sheen. Silt at base of Hydrasleeve.	1.03	20.2	1190.0	6.55	43.7	249.5
MW067	MW67	3/11/2022 14:50	Light brown, medium turbidity, no odour, no sheen.	2.52	22.1	6582.0	6.84	127.6	333.4
MW068	MW68	3/11/2022 13:45	Light brown, low turbidity, no odour, no sheen.	0.80	21.4	748.0	5.88	128.1	333.9
MW069	MW69	3/11/2022 15:08	Light brown, low turbidity, no odour, no sheen.	2.65	21.3	389.9	7.04	99.6	305.4
MW070	MW70	3/11/2022 14:18	Ligh yellow, low turbidity, no odour, no sheen.	5.30	19.1	124.1	6.13	144.1	349.9

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Table T2 - Groundwater Geochemical Parameters and Observations

				Field Measurements					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
Location Code	**Alternative Name**	**Sampled Date Time**	**Sample Comment**	mg/L	°C	µS/cm	pH Units	mV	mV
MW071	MW71	3/11/2022 14:30	Light brown, medium turbidity, no odour, no sheen.	6.70	20.1	93.9	6.35	150.6	356.4
MW072	MW72	10/11/2022 9:43	Clear, no turbidity, no odour, no sheen.	1.01	21.6	217.4	6.10	85.8	291.6
MW073	MW73	10/11/2022 9:25	Clear, low turbidity, no odour, no sheen. Orange suspended solids.	1.66	20.6	512.0	6.51	59.3	n/a
MW074	MW74	10/11/2022 9:32	Light brown, low turbidity, no odour, no sheen.	1.64	20.1	818.0	6.61	79.9	285.7
MW075	MW75	8/11/2022 13:08	Light brown, low turbidity, no odour, no sheen.	2.50	25.1	406.4	5.99	138.1	343.9
MW076	MW76	10/11/2022 15:05	Light brown, low turbidity, no odour, no sheen.	1.80	20.8	334.7	6.06	103.9	309.7
MW077	MW77	10/11/2022 15:40	Light brown, low turbidity, no odour, no sheen.	1.09	21.1	511.0	5.89	75.8	281.6
MW078	MW78	8/11/2022 13:40	Light brown, low turbidity, no odour, no sheen.	1.14	27.3	777.0	6.98	72.8	278.6
MW079	MW79	8/11/2022 14:55	Clear, low turbidity, no odour, no sheen. Suspended solids.	4.16	20.3	1333.0	6.17	63.4	n/a
MW080	MW80	8/11/2022 14:27	Clear, no turbidity, no odour, no sheen.	1.01	22.3	653.0	5.88	58.3	264.1
MW081	MW81	3/11/2022 9:30	Light brown, medium turbidity, no odour, no sheen. Brown-orange algae suspended in water.	1.19	23.5	1466.0	6.60	235.5	441.3
MW082	MW82	21/11/2022 10:05	Light brown, medium turbidity, no odour, no sheen.	1.87	22.8	1013.0	6.59	9.9	215.7
MW086	MW86	n/a	Unable to access, under soil stockpile.	n/a	n/a	n/a	n/a	n/a	n/a
MW091	MW91	7/11/2022 15:35	Light brown, low turbidity, no odour, no sheen.	2.02	20.8	163.9	5.68	118.6	324.4
MW092	MW92	7/11/2022 14:00	Light brown, low turbidity, no odour, no sheen.	0.79	23.6	1196.0	5.91	-16.3	189.5
MW097	MW97	n/a	Unable to locate.	n/a	n/a	n/a	n/a	n/a	n/a
MW098	MW98	n/a	Unable to locate.	n/a	n/a	n/a	n/a	n/a	n/a
MW106		8/11/2022 14:10	Light brown, low turbidity, no odour, no sheen.	1.73	20.7	1121.0	5.90	22.6	228.4
MW107D		10/11/2022 11:52	Clear, low turbidity, no odour, no sheen.	1.84	22.5	1269.0	5.95	15.9	221.7
MW107I		10/11/2022 11:52	Clear, no turbidity, no odour, no sheen.	3.90	21.7	246.3	6.01	79.0	284.8
MW108		11/11/2022 7:13	Light brown, low turbidity, no odour, no sheen.	2.10	20.1	2389.0	6.39	-20.8	185.0
MW109		8/11/2022 9:10	Light brown, low turbidity, no odour, no sheen.	1.62	20.8	3581.0	6.48	10.7	216.5
MW110		8/11/2022 11:29	Light brown, low turbidity, no odour, no sheen.	3.35	19.7	2371.0	7.02	29.0	234.8
MW111		11/11/2022 9:11	Clear, no turbidity, no odour, no sheen.	1.18	20.1	3385.0	6.53	65.9	271.7
MW112		11/11/2022 9:55	Light brown, low turbidity, no odour, no sheen.	10.77	19.3	2276.0	6.21	18.2	224.0
MW113		11/11/2022 11:24	Clear, no turbidity, no odour, no sheen.	3.74	22.1	2905.0	7.21	0.2	206.0
MW114		11/11/2022 12:20	Light brown, no turbidity, no odour, no sheen.	1.54	26.9	1673.0	6.49	59.9	265.7

Notes

mV	milliVolts
mg/L	milligrams per Litre
°C	degrees Celsius
µS/cm	microSiemens per centimetre
Corrected field Redox measurement Eh = Er + 205.8	
-	Not measured
n/a	Not applicable

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Table T3 - Surface Water Geochemical Parameters and Observations

				Field Measurements					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
Location Code	**Sampled Date Time**	**Location Comments**	**Sample Comment**	mg/L	°C	µS/cm	pH Units	mV	mV
SW001	n/a	Drainage channel. Location dry.	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SW002	8/11/2022 8:45	Drainage channel. Waterbody width (approx.): 2 m, depth (approx.): 0.50 m. Water flow observed.	Brown, low turbidity, no odour, no sheen.	2.27	18.7	568.0	7.07	95.3	301.1
SW003	8/11/2022 9:00	Drainage. Waterbody width (approx.): 1.0 m., depth (approx.): 0.2 m. Water flow observed.	Light brown, low turbidity, no odour, no sheen.	2.11	20.4	196.7	6.47	-9.2	196.6
SW005	11/11/2022 10:40	Creek. Waterbody width (approx.): 4 m wide, depth (approx.): 0.3 m. Water flow not observed.	Yellow/brown, low turbidity, no odour, no sheen.	0.89	19.3	1432.0	7.38	-44.3	161.5
SW007	11/11/2022 11:45	Creek. Waterbody width (approx.): 4 m wide, depth (approx.): 1 m. Water flow not observed.	Grey, low turbidity, no odour, no sheen.	1.82	20.5	1332.0	6.79	32.0	237.8
SW008	11/11/2022 12:45	Pond. Waterbody width (approx.): 15 m wide, depth (approx.): 1 m. Water flow not observed.	Light yellow, low turbidity, no odour, biosheen. Brown suspended solids.	6.59	32.2	11.9	7.58	26.3	232.1
SW009	18/11/2022 9:10	Pond with drainage channel. Waterbody width (approx.): 8 m wide, depth (approx.): 1 m. Water flow not observed.	Brown, low turbidity, no odour, no sheen. Orange/brown suspended solids.	3.97	20.6	1021.0	6.94	100.0	305.8
SW011	11/11/2022 13:30	Pond. Waterbody width (approx.): 25 m wide, depth (approx.): 25 m. Water flow not observed.	Light yellow, low turbidity, no odour, no sheen. Light yellow, orange/brown suspended solids.	5.22	27.9	245.0	7.75	52.7	258.5
SW013	18/11/2022 11:35	Pond. Waterbody width (approx.): 25 m wide, depth (approx.): 0.1 m at sample point. Water flow not observed.	Brown, low turbidity, no odour, no sheen.	2.10	22.5	604.0	7.05	59.8	265.6
SW014	11/11/2022 8:50	Creek. Waterbody width (approx.): 0.2 m, depth (approx.): 0.1 m at sample point. Water flow not observed.	Light yellow, low turbidity, no odour, no sheen. Trace suspended solids.	0.49	17.4	159.8	6.34	-77.4	128.4
SW015	10/11/2022 14:35	Drainage channel. Waterbody width (approx.): 1.5 m, depth (approx.): 0.2 m. Water flow not observed.	Brown/orange, no turbidity, organic odour, no sheen.	3.39	27.3	1880.0	7.66	97.3	303.1
SW016	10/11/2022 13:52	Creek. Waterbody width (approx.): 5m, depth (approx.): 0.2 m at sample point. Water flow not observed.	Yellow/brown, low turbidity, no odour, no sheen.	5.04	24.8	715.0	7.49	88.0	293.8
SW018	7/11/2022 16:35	Creek. Waterbody width (approx.): 3 m, depth (approx.): 0.5 m. Water flow observed.	Light brown, low turbidity, no odour, no sheen.	5.09	24.1	188.0	6.97	119.4	325.2
SW019	7/11/2022 13:10	Creek. Waterbody width (approx.): 4 m wide, depth (approx.): 1m. Water flow observed.	Clear, low turbidity, no odour, no sheen. Orange suspended solids.	1.38	23.5	1006.0	6.62	36.1	241.9
SW020	7/11/2022 17:10	River. Waterbody width (approx.): 20 m wide, depth (approx): 0.2 m at sample point. Water flow observed.	Brown, low turbidity, no odour, biosheen.	9.55	27.1	1134.0	8.37	90.9	296.7
SW022	3/11/2022 10:20	Drainage channel, Waterbody width (approx.): 5m, depth (approx.): 0.3 m. Water flow not observed.	Clear, low turbidity, no odour, no sheen.	2.89	22.2	631.0	7.31	119.9	325.7
SW023	7/11/2022 13:40	Creek. Waterbody width (approx.): 5 m wide, dpeth (approx.): 0.3 m. Water flow observed.	n/a	4.26	25.3	1002.0	6.71	109.3	n/a
SW024	3/11/2022 11:40	Hawkesbury River. Waterbody width (approx.): 50m, depth (approx.): 0.1 m at sample point. Water flow observed.	Brown/orange, medium turbidity, no odour, no sheen. Suspended solids.	5.34	24.9	176.8	7.36	140.6	346.4
SW030	7/11/2022 16:09	Hawkesbury River. Waterbody width (approx.): 30 m, depth (approx.) 0.2 m at sample point. Water flow observed.	Clear, no turbidity, no odour, no sheen.	6.02	22.8	134.4	6.86	80.6	286.4
SW035	3/11/2022 11:02	Creek. Waterbody width (approx.): 15 m, depth (appox.): 2m. Water flow observed.	Light brown, low turbidity, no odour, no sheen.	12.44	25.9	347.3	7.52	160.5	366.3
SW037	8/11/2022 10:35	Sewage treatment pond. Waterbody width (approx.): 50 m, depth (approx.) 0.1 m at sample point. Water flow not observed.	Clear, low turbidity, no odour, no sheen.	6.03	26.0	217.7	8.08	17.1	222.9
SW081	n/a	Unable to access.	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes

mV	milliVolts
mg/L	milligrams per Litre
°C	degrees Celsius
µS/cm	microSiemens per centimetre

Corrected field Redox measurement Eh = Er + 205.8

-	Not measured
n/a	Not applicable

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Table T4 - Sediment Observations

Location Code	Alternative Name	Sampled Date Time	Sample Depth From (m)	Sample Depth To (m)	Sample Comment
SD001		7/11/2022 9:20	0.1	0.15	Sandy Clay: brown, low plasticity, with rootlets.
SD002		8/11/2022 8:45	0.1	0.15	SILT: brown, fine grained, organic inclusions.
SD003		8/11/2022 9:00	0.1	0.15	SILT: brown, fine grained, with rootlets.
SD005		11/11/2022 10:40	0.1	0.15	SILT: brown, fine grained, with rootlets.
SD007		11/11/2022 11:45	0.1	0.15	SILT: dark brown, fine grained, with rootlets.
SD008		11/11/2022 12:45	0.1	0.15	SILT: dark brown, fine grained, with rootlets.
SD009		18/11/2022 9:10	0.1	0.15	SILT: dark brown, fine grained, with rootlets.
SD011		11/11/2022 13:35	0.1	0.15	SILT: dark brown, fine grained.
SD013		18/11/2022 11:30	0.1	0.15	SILT: brown, fine grained, with rootlets.
SD014		11/11/2022 8:50	0.1	0.15	SAND: brown, fine grained, organic inclusions.
SD015		10/11/2022 14:35	0.1	0.15	SILT: dark brown, fine grained, with rootlets.
SD016	PW004	10/11/2022 13:44	0.1	0.15	SILT: brown, fine grained, gravels up to 20 mm, with rootlets.
SD018		7/11/2022 16:35	0.1	0.15	Sandy Clay: brown, low plasticity, with rootlets.
SD019		7/11/2022 13:10	0.1	0.15	SILT: dark brown, fine grained, root inclusions.
SD020		7/11/2022 17:10	0.1	0.15	SAND: light brown, medium grained, organic inclusions.
SD022		3/11/2022 10:15	0.1	0.15	SILT: dark brown, low plasticity, gravels up to 20 mm.
SD023	PW001	7/11/2022 13:40	0.1	0.15	Sandy GRAVEL: brown, medium grained, with rootlets.
SD024		3/11/2022 11:40	0.1	0.15	SAND: brown, fine to medium grained, with rootlets.
SD030	PW003	7/11/2022 16:12	0.1	0.15	SAND: light brown, coarse grain.
SD035		3/11/2022 11:00	0.1	0.15	Sandy CLAY: dark brown, medium plasticity, fine sand, with rootlets.
SD081		n/a	n/a	n/a	Unable to access.

Notes

n/a Not applicable

Table T5 - Groundwater Analytical Results

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																				Per- and Poly-fluoroalkyl Substances														

Table T5 - Groundwater Analytical Results

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																											Inorganics																Metals			

Table T5 - Groundwater Analytical Results

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							Per- and Poly-fluoroalkyl Substances																												
							Perfluorooctanoic Acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.01	0.01	0.01	0.01	0.05	0.05	0.05	0.05	0.05	0.02	0.05	0.05	0.02	0.05	0.02	0.1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.01
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																											
Location_Code	**Alt. Name**	**Date**	**Field_ID**	**Sample_Type**	**Lab_Report #**																														
MW047	MW47	2/11/2022	0902_MW047_221102	Normal	ES2239683		0.02	*0.55*	0.56	**1.11**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	<0.1	<0.02	<0.02	<0.02	0.03	<0.02	0.09	<0.02	<0.02	0.11	<0.02	<0.05	<0.02	<0.02	1.45
MW048	MW48	2/11/2022	0902_MW048_221102	Normal	ES2239683		<0.01	<0.01	0.37	**0.37**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	<0.02	<0.02	0.13	0.03	<0.05	<0.02	<0.02	0.85
MW050	MW50	2/11/2022	0902_MW050_221102	Normal	ES2239683		**0.99**	*24.4*	13.4	**37.8**	<0.05	<0.05	0.14	0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.94	0.7	0.03	<0.02	<0.02	1	0.61	5.04	0.02	0.03	3.67	1.16	<0.05	<0.02	<0.02	54.2
MW051	MW51	2/11/2022	0902_MW051_221102	Normal	ES2239683		***65.3***	*660*	1120	**1780**	<0.05	<0.05	0.24	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	96.4	20.8	<0.05	<0.05	<0.05	125	21.3	175	0.5	<0.05	149	36.2	<0.12	<0.05	<0.05	2470
MW052	MW52	2/11/2022	0902_MW052_221102	Normal	ES2239683		0.03	*0.42*	1.39	**1.81**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43	<0.1	<0.02	<0.02	<0.02	0.02	0.04	0.72	<0.02	<0.02	0.46	0.14	<0.05	<0.02	<0.02	3.65
MW053	MW53	10/11/2022	0902_MW053_221110	Normal	ES2240927		0.1	*0.03*	2	**2.03**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.2	<0.1	<0.02	<0.02	<0.02	<0.02	0.06	0.24	<0.02	<0.02	0.29	0.06	<0.05	<0.02	<0.02	2.98
MW054	MW54	10/11/2022	0902_MW054_221110	Normal	ES2240927		<0.01	<0.01	0.41	**0.41**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.07	<0.02	<0.02	0.09	<0.02	<0.05	<0.02	<0.02	0.67
MW056	MW56	7/11/2022	0902_MW056_221107	Normal	ES2240328		<0.01	*0.02*	0.01	0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.03
MW056	MW56	7/11/2022	0902_QC105_221107	Field_D	ES2240328		<0.01	*0.01*	<0.01	0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.01
MW056	MW56	7/11/2022	0902_QC203_221107	Interlab_D	310103		<0.01	*0.02*	0.01	0.03	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.01	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	0.03
MW057	MW57	10/11/2022	0902_MW057_221110	Normal	ES2240927		0.08	*0.25*	1.08	**1.33**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12	0.1	<0.02	<0.02	<0.02	0.03	0.05	0.22	<0.02	<0.02	0.12	0.1	<0.05	<0.02	<0.02	2.15
MW058	MW58	10/11/2022	0902_MW058_221110	Normal	ES2240927		0.3	*0.26*	2.1	**2.36**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.92	0.2	<0.02	<0.02	<0.02	0.06	0.26	1.5	<0.02	<0.02	0.73	0.32	<0.05	<0.02	<0.02	6.65
MW059	MW59	7/11/2022	0902_MW059_221107	Normal	ES2240328		0.03	*0.1*	5.01	**5.11**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.52	0.6	<0.02	<0.02	<0.02	<0.02	0.47	4.22	<0.02	<0.02	2.9	0.8	<0.05	<0.02	<0.02	17.6
MW059	MW59	7/11/2022	0902_QC205_221107	Interlab_D	310103		0.02	*0.07*	4.3	**4.3**	<0.02	<0.01	0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	3	0.53	<0.02	<0.02	<0.05	<0.01	0.4	2.9	<0.01	<0.1	2.8	0.66	<0.5	<0.1	<0.02	15
MW060	MW60	7/11/2022	0902_MW060_221107	Normal	ES2240328		0.04	*0.23*	0.18	**0.41**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.07	<0.02	<0.02	<0.02	0.03	<0.05	<0.02	<0.02	0.55
MW060	MW60	7/11/2022	0902_QC107_221107	Field_D	ES2240328		0.04	*0.14*	0.16	**0.3**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	<0.02	<0.02	<0.02	0.03	<0.05	<0.02	<0.02	0.43
MW060	MW60	7/11/2022	0902_QC207_221107	Interlab_D	310103		0.03	*0.14*	0.16	**0.31**	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.02	0.06	<0.02	<0.02	<0.05	0.01	0.02	0.05	<0.01	<0.1	0.02	0.03	<0.5	<0.1	<0.02	0.55
MW061	MW61	7/11/2022	0902_MW061_221107	Normal	ES2240328		0.06	*0.4*	0.48	**0.88**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	<0.02	0.05	0.16	<0.02	<0.02	0.05	0.08	<0.05	<0.02	<0.02	1.34
MW062	MW62	3/11/2022	0902_MW062_221103	Normal	ES2240328		<0.01	*0.57*	0.12	**0.69**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	0.02	0.07	<0.02	<0.02	<0.02	0.1	<0.05	<0.02	<0.02	0.88
MW063	MW63	3/11/2022	0902_MW063_221103	Normal	ES2240328		0.55	*4.43*	11.2	**15.6**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.66	0.4	<0.02	<0.02	<0.02	0.65	0.45	3.2	<0.02	<0.02	2.28	0.65	<0.05	<0.02	<0.02	25.5
MW064	MW64	2/11/2022	0902_MW064_221102	Normal	ES2239683		0.01	*0.17*	0.36	**0.53**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	0.05	<0.02	<0.05	<0.02	<0.02	0.66
MW065	MW65	2/11/2022	0902_MW065_221102	Normal	ES2239683		<0.01	*0.02*	0.39	**0.41**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	0.05	<0.02	<0.05	<0.02	<0.02	0.54
MW066	MW66	2/11/2022	0902_MW066_221102	Normal	ES2239683		0.02	*0.52*	0.77	**1.29**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	<0.1	<0.02	<0.02	<0.02	0.04	<0.02	0.06	<0.02	<0.02	0.1	<0.02	<0.05	<0.02	<0.02	1.61
MW067	MW67	3/11/2022	0902_MW067_221103	Normal	ES2240328		<0.01	*0.02*	0.04	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.06
MW068	MW68	3/11/2022	0902_MW068_221103	Normal	ES2240328		0.25	*1.75*	6.64	**8.39**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.41	<0.1	<0.02	<0.02	<0.02	0.23	0.1	0.71	<0.02	<0.02	0.66	0.14	<0.05	<0.02	<0.02	10.9
MW069	MW69	3/11/2022	0902_MW069_221103	Normal	ES2240328		0.03	*0.6*	0.38	**0.98**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	<0.02	<0.02	0.05	0.02	<0.05	<0.02	<0.02	1.22
MW070	MW70	3/11/2022	0902_MW070_221103	Normal	ES2240328		0.06	*1.24*	0.53	**1.77**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13	<0.1	<0.02	<0.02	<0.02	0.03	0.06	0.17	<0.02	<0.02	0.07	0.12	<0.05	<0.02	<0.02	2.41
MW071	MW71	3/11/2022	0902_MW071_221103	Normal	ES2240328		0.04	*1.08*	0.32	**1.4**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06	<0.1	<0.02	<0.02	<0.02	0.02	0.04	0.09	<0.02	<0.02	0.04	0.06	<0.05	<0.02	<0.02	1.75
MW072	MW72	10/11/2022	0902_MW072_221110	Normal	ES2240927		**5.04**	*110*	103	**213**	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	13	2.3	<0.05	<0.05	<0.05	6.69	1.74	15.6	<0.05	<0.05	13.2	2.86	<0.12	<0.05	<0.05	273
MW073	MW73	10/11/2022	0902_MW073_221110	Normal	ES2240927		**1.81**	*1.61*	22.7	**24.3**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27	0.3	<0.02	<0.02	<0.02	2.56	0.2	1.33	<0.02	<0.02	0.93	0.22	<0.05	<0.02	<0.02	31.9
MW074	MW74	10/11/2022	0902_MW074_221110	Normal	ES2240927		**1.44**	*6.32*	39.2	**45.5**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.45	4.5	<0.02	<0.02	<0.02	0.73	1.02	10.2	<0.02	<0.02	7.99	1.89	<0.05	<0.02	<0.02	79.7
MW074	MW74	10/11/2022	0902_QC111_221110	Field_D	ES2240927		**1.45**	*7.85*	34.8	**42.6**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.09	4.1	<0.02	<0.02	<0.02	1.06	1.09	10.4	<0.02	<0.02	6.66	1.85	<0.05	<0.02	<0.02	75.4
MW075	MW75	8/11/2022	0902_MW075_221108	Normal	ES2240328		<0.01	<0.01	0.01	0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.01
MW076	MW76	10/11/2022	0902_MW076_221110	Normal	ES2240927		<0.01	<0.01	0.04	0.04	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.04
MW077	MW77	10/11/2022	0902_MW077_221110	Normal	ES2240927		<0.01	*0.02*	0.03	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.05
MW078	MW78	8/11/2022	0902_MW078_221108	Normal	ES2240328		0.01	*0.03*	0.67	**0.7**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.16	<0.02	<0.02	0.1	0.06	<0.05	<0.02	<0.02	1.21
MW078	MW78	8/11/2022	0902_QC212_221108	Interlab_D	310103		<0.01	*0.03*	0.58	**0.61**	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.08	0.1	<0.02	<0.02	<0.05	<0.01	0.01	0.12	<0.01	<0.1	0.1	0.05	<0.5	<0.1	<0.02	1.1
MW079	MW79	8/11/2022	0902_MW079_221108	Normal	ES2240328		0.06	*1.44*	1.64	**3.08**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	<0.1	<0.02	<0.02	<0.02	0.04	0.03	0.22	<0.02	<0.02	0.18	0.06	<0.05	<0.02	<0.02	3.83
MW080	MW80	8/11/2022	0902_MW080_221108	Normal	ES2240328		0.06	*0.78*	2.07	**2.85**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.3	<0.1	<0.02	<0.02	<0.02	0.09	0.04	0.26	<0.02	<0.02	0.33	0.06	<0.05	<0.02	<0.02	3.99
MW081	MW81	3/11/2022	0902_MW081_221103	Normal	ES2239683		<0.01	*0.07*	0.04	**0.11**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.11
MW081	MW81	3/11/2022	0902_QC103_221103	Field_D	ES2239683		<0.01	*0.05*	0.03	**0.08**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.08

Table T5 - Groundwater Analytical Results

AECOM

							Inorganics																				Metals			
							Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Nitrite + Nitrate as N	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	Calcium	Cations Total	Chloride	Ionic Balance	Kjeldahl Nitrogen Total	Phosphate total (as P)	Phosphorus	Potassium	Magnesium	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Sodium	Sulphate	Sulfate as SO4 - Turbidimetric	Aluminium	Bromine	Iron	Manganese
							mg/L	mg/L	mg/L	µg/L	mg/L	µg/L	meq/L	mg/L	meq/L	mg/L	%	mg/L	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L
LOR							1	1	0.01	1000	1	10	0.01	1	0.01	1	0.01	0.1	0.01	0.05	1	1	0.01	0.01	100	1	1	1	0.01	100	0.05	0.001
PFAS NEMP 2020 Drinking Water																																
PFAS NEMP 2020 Freshwater 99%																																
Location_Code	**Alt. Name**	**Date**	**Field_ID**	**Sample_Type**	**Lab_Report #**																											
MW047	MW47	2/11/2022	0902_MW047_221102	Normal	ES2239683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW048	MW48	2/11/2022	0902_MW048_221102	Normal	ES2239683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	MW50	2/11/2022	0902_MW050_221102	Normal	ES2239683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051	MW51	2/11/2022	0902_MW051_221102	Normal	ES2239683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW052	MW52	2/11/2022	0902_MW052_221102	Normal	ES2239683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW053	MW53	10/11/2022	0902_MW053_221110	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054	MW54	10/11/2022	0902_MW054_221110	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	MW56	7/11/2022	0902_MW056_221107	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	MW56	7/11/2022	0902_QC105_221107	Field_D	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	MW56	7/11/2022	0902_QC203_221107	Interlab_D	310103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	MW57	10/11/2022	0902_MW057_221110	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	MW58	10/11/2022	0902_MW058_221110	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	MW59	7/11/2022	0902_MW059_221107	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	MW59	7/11/2022	0902_QC205_221107	Interlab_D	310103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	MW60	7/11/2022	0902_MW060_221107	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	MW60	7/11/2022	0902_QC107_221107	Field_D	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	MW60	7/11/2022	0902_QC207_221107	Interlab_D	310103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	MW61	7/11/2022	0902_MW061_221107	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	MW62	3/11/2022	0902_MW062_221103	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	MW63	3/11/2022	0902_MW063_221103	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064	MW64	2/11/2022	0902_MW064_221102	Normal	ES2239683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW065	MW65	2/11/2022	0902_MW065_221102	Normal	ES2239683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW066	MW66	2/11/2022	0902_MW066_221102	Normal	ES2239683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW067	MW67	3/11/2022	0902_MW067_221103	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW068	MW68	3/11/2022	0902_MW068_221103	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW069	MW69	3/11/2022	0902_MW069_221103	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW070	MW70	3/11/2022	0902_MW070_221103	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	MW71	3/11/2022	0902_MW071_221103	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	MW72	10/11/2022	0902_MW072_221110	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	MW73	10/11/2022	0902_MW073_221110	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	MW74	10/11/2022	0902_MW074_221110	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	MW74	10/11/2022	0902_QC111_221110	Field_D	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW075	MW75	8/11/2022	0902_MW075_221108	Normal	ES2240328	86	<1	3.27	<1000	86	<10	4.6	12	4.36	97	2.66	1.1	0.1	-	1	10	3.14	0.13	4400	67	-	7	0.03	900	0.05	0.298
MW076	MW76	10/11/2022	0902_MW076_221110	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW077	MW77	10/11/2022	0902_MW077_221110	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	MW78	8/11/2022	0902_MW078_221108	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	MW78	8/11/2022	0902_QC212_221108	Interlab_D	310103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW079	MW79	8/11/2022	0902_MW079_221108	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW080	MW80	8/11/2022	0902_MW080_221108	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW081	MW81	3/11/2022	0902_MW081_221103	Normal	ES2239683	286	<1	2.31	<1000	286	30	12.7	28	12.5	201	0.81	0.9	0.2	-	<1	23	2.22	0.09	3200	212	-	64	<0.01	900	0.29	1.83
MW081	MW81	3/11/2022	0902_QC103_221103	Field_D	ES2239683	284	<1	2.4	<1000	284	20	12.4	28	12.6	201	0.6	0.6	0.17	-	<1	23	2.32	0.08	3000	213	-	51	<0.01	1000	0.3	1.83

Table T5 - Groundwater Analytical Results

AECOM

							Per- and Poly-fluoroalkyl Substances																												
							Perfluorooctanoic Acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.01	0.01	0.01	0.01	0.05	0.05	0.05	0.05	0.05	0.02	0.05	0.05	0.02	0.05	0.02	0.1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.01
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																											
Location_Code	**Alt. Name**	**Date**	**Field_ID**	**Sample_Type**	**Lab_Report #**																														
MW082	MW82	21/11/2022	0902_MW082_221121	Normal	ES2242128		<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
MW091	MW91	7/11/2022	0902_MW091_221107	Normal	ES2240328		<0.01	*0.02*	0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.07
MW092	MW92	7/11/2022	0902_MW092_221107	Normal	ES2240328		<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01
MW106	-	8/11/2022	0902_MW106_221108	Normal	ES2240328		0.08	*1.64*	2.2	**3.84**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27	<0.1	<0.02	<0.02	<0.02	0.13	0.05	0.34	<0.02	<0.02	0.32	0.07	<0.05	<0.02	5.1
MW106	-	8/11/2022	0902_QC213_221108	Interlab_D	310103		0.07	*1.1*	1.9	**3**	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.27	0.04	<0.02	<0.02	<0.05	0.12	0.04	0.27	<0.01	<0.1	0.3	0.06	<0.5	<0.1	<0.02	4.2
MW107D	-	10/11/2022	0902_MW107D_221110	Normal	ES2240927		0.18	*1.16*	3.43	**4.59**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35	<0.1	<0.02	<0.02	<0.02	0.1	0.1	0.73	<0.02	<0.02	0.42	0.14	<0.05	<0.02	<0.02	6.61
MW107I	-	10/11/2022	0902_MW107I_221110	Normal	ES2240927		***95***	*370*	728	**1100**	<0.05	<0.05	0.11	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	91.4	26.6	0.14	<0.05	<0.05	37.4	40.4	227	0.24	<0.05	120	41.2	<0.12	<0.05	<0.05	1780
MW108	-	11/11/2022	0902_MW108_221111	Normal	ES2240927		<0.01	*0.03*	0.45	**0.48**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.1	<0.02	<0.02	0.11	<0.02	<0.05	<0.02	<0.02	0.8
MW109	-	8/11/2022	0902_MW109_221108	Normal	ES2240328		0.18	*3.81*	2.6	**6.41**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.32	<0.1	<0.02	<0.02	<0.02	0.14	0.1	0.52	<0.02	<0.02	0.36	0.12	<0.05	<0.02	<0.02	8.15
MW110	-	8/11/2022	0902_MW110_221108	Normal	ES2240328		0.05	*0.12*	2	**2.12**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.3	<0.1	<0.02	<0.02	<0.02	0.03	0.04	0.4	<0.02	<0.02	0.37	0.08	<0.05	<0.02	<0.02	3.39
MW111	-	11/11/2022	0902_MW111_221111	Normal	ES2240927		<0.01	<0.01	0.09	**0.09**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	<0.02	<0.02	0.03	<0.02	<0.05	<0.02	<0.02	0.22
MW112	-	11/11/2022	0902_MW112_221111	Normal	ES2240927		<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01
MW113	-	11/11/2022	0902_MW113_221111	Normal	ES2240927		<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01
MW114	-	11/11/2022	0902_MW114_221111	Normal	ES2240927		<0.01	<0.01	0.1	**0.1**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.1

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first-time detection above LOR
	Denotes new exceedence of human health and/or ecological screening criteria

Table T5 - Groundwater Analytical Results

AECOM

																												Inorganics				Metals

Table T6 - Surfacewater Analytical Results

AECOM

						Per- and Poly-fluoroalkyl Substances																																
						Perfluorooctanoic Acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.05	0.05	0.05	0.05	0.05	0.02	0.05	0.05	0.02	0.05	0.02	0.1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.01
PFAS NEMP 2020 Recreational Water						**10**			**2**																											
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																													
Location_Code	**Date**	**Field_ID**	**Sample_Type**	**Lab_Report #**																																
SW002	8/11/2022	0902_SW002_221108	Normal	ES2240328		1.07	*26.8*	16.3	**43.1**	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.02	0.5	<0.02	<0.02	<0.02	1.26	0.62	3.23	0.05	<0.02	2.42	0.77	<0.05	<0.02	<0.02	55.1
SW003	8/11/2022	0902_SW003_221108	Normal	ES2240328		1.25	*28.6*	17.6	**46.2**	<0.05	<0.05	0.1	0.08	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.25	0.5	0.03	0.06	<0.02	1.57	0.72	3.83	0.1	0.03	2.77	0.91	<0.05	<0.02	0.03	60.4
SW005	11/11/2022	0902_SW005_221111	Normal	ES2240927		<0.01	*0.19*	0.08	0.27	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.27
SW007	11/11/2022	0902_SW007_221111	Normal	ES2240927		<0.01	*0.14*	0.15	0.29	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.29
SW008	11/11/2022	0902_SW008_221111	Normal	ES2240927		0.01	*0.2*	0.16	0.36	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	0.02	<0.02	<0.05	<0.02	<0.02	0.44
SW008	11/11/2022	0902_QC113_221111	Field_D	ES2240927		0.02	*0.23*	0.16	0.39	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.44
SW009	18/11/2022	0902_SW009_221118	Normal	ES2241892		<0.01	*0.14*	0.08	0.22	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.24
SW011	11/11/2022	0902_SW011_221111	Normal	ES2240927		0.42	*11.9*	5.44	**17.3**	<0.05	<0.05	0.1	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.58	0.1	<0.02	<0.02	<0.02	0.36	0.2	1.16	<0.02	<0.02	0.67	0.28	<0.05	<0.02	<0.02	21.2
SW013	18/11/2022	0902_SW013_221118	Normal	ES2241892		<0.01	*0.14*	0.21	0.35	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	<0.02	0.03	<0.02	<0.05	<0.02	<0.02	0.46
SW014	11/11/2022	0902_SW014_221111	Normal	ES2240927		0.06	*1.05*	1.28	**2.33**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.1	<0.1	<0.02	<0.02	<0.02	0.05	0.03	0.35	<0.02	<0.02	0.14	0.06	<0.05	<0.02	<0.02	3.12
SW015	10/11/2022	0902_SW015_221110	Normal	ES2240927		<0.01	*0.35*	0.24	0.59	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.59
SW016	10/11/2022	0902_SW016_221110	Normal	ES2240927		0.02	*0.4*	0.58	0.98	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	<0.02	<0.02	0.06	<0.02	<0.05	<0.02	<0.02	1.17
SW016	10/11/2022	0902_QC112_221110	Field_D	ES2240927		0.02	*0.34*	0.49	0.83	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	<0.02	<0.02	0.05	<0.02	<0.05	<0.02	<0.02	1
SW018	7/11/2022	0902_SW018_221107	Normal	ES2240328		<0.01	*0.03*	0.02	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.05
SW019	7/11/2022	0902_SW019_221107	Normal	ES2240328		0.01	*0.05*	0.04	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.1
SW019	7/11/2022	0902_QC109_221107	Field_D	ES2240328		<0.01	*0.04*	0.04	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.08
SW019	7/11/2022	0902_QC209_221107	Interlab_D	310103		<0.01	*0.04*	0.03	0.07	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.01	0.04	<0.02	<0.02	<0.05	<0.01	<0.01	0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	0.12
SW020	7/11/2022	0902_SW020_221107	Normal	ES2240328		0.01	*0.06*	0.04	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.13
SW022	3/11/2022	0902_SW022_221103	Normal	ES2239683		0.01	*0.05*	0.2	0.25	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.08	<0.02	<0.02	0.04	<0.02	<0.05	<0.02	<0.02	0.42
SW022	3/11/2022	0902_QC104_221103	Field_D	ES2239683		0.01	*0.04*	0.19	0.23	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.07	<0.02	<0.02	0.04	<0.02	<0.05	<0.02	<0.02	0.39
SW023	7/11/2022	0902_SW023_221107	Normal	ES2240328		0.02	*0.29*	0.17	0.46	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	<0.02	0.02	<0.02	<0.05	<0.02	<0.02	0.57
SW023	7/11/2022	0902_QC204_221107	Interlab_D	310103		0.01	*0.22*	0.16	0.38	<0.02	<0.01	<0.01	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.03	0.05	<0.02	<0.02	<0.05	<0.01	<0.01	0.03	<0.01	<0.1	0.02	<0.02	<0.5	<0.1	<0.02	0.52
SW024	3/11/2022	0902_SW024_221103	Normal	ES2239683		<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01
SW030	7/11/2022	0902_SW030_221107	Normal	ES2240328		<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.01
SW035	3/11/2022	0902_SW035_221103	Normal	ES2239683		<0.01	*0.04*	0.05	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.09
SW037	8/11/2022	0902_SW037_221108	Normal	ES2240328		<0.01	*0.18*	0.08	0.26	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.28

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first-time detection above LOR
	Denotes new exceedence of human health and/or ecological screening criteria

Table T6 - Surfacewater Analytical Results

AECOM

						Inorganics																				Metals			
						Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate as CaCO3)	Nitrite + Nitrate as N	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	Calcium	Cations Total	Chloride	Ionic Balance	Kjeldahl Nitrogen Total	Phosphate total (as P)	Phosphorus	Potassium	Magnesium	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Sodium	Sulphate	Sulfate as SO4 - Turbidimetric	Aluminium	Bromine	Iron	Manganese
						mg/L	mg/L	mg/L	µg/L	mg/L	µg/L	meq/L	mg/L	meq/L	mg/L	%	mg/L	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L
LOR						1	1	0.01	1000	1	10	0.01	1	0.01	1	0.01	0.1	0.01	0.05	1	1	0.01	0.01	100	1	1	1	0.01	100	0.05	0.001
PFAS NEMP 2020 Recreational Water																															
PFAS NEMP 2020 Freshwater 99%																															
Location_Code	**Date**	**Field_ID**	**Sample_Type**	**Lab_Report #**																											
SW002	8/11/2022	0902_SW002_221108	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW003	8/11/2022	0902_SW003_221108	Normal	ES2240328	73	<1	0.02	<1000	73	120	2.4	13	2.2	31	-	0.4	0.23	-	2	5	0.02	<0.01	400	25	-	3	0.04	200	3.98	0.553
SW005	11/11/2022	0902_SW005_221111	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW007	11/11/2022	0902_SW007_221111	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW008	11/11/2022	0902_SW008_221111	Normal	ES2240927	103	<1	0.06	<1000	103	620	15	35	14.5	428	1.75	1.4	0.13	-	9	40	0.04	0.02	1500	212	-	42	0.03	1100	0.36	1.38
SW008	11/11/2022	0902_QC113_221111	Field_D	ES2240927	102	<1	0.06	<1000	102	600	16	35	14.8	460	3.97	1.5	0.11	-	9	40	0.04	0.02	1600	218	-	46	0.03	1100	0.37	1.39
SW009	18/11/2022	0902_SW009_221118	Normal	ES2241892	79	<1	1.5	<1000	79	100	14.7	28	12.8	430	6.92	1.6	0.2	-	9	36	1.48	0.02	3100	188	-	46	1.05	1000	3.56	0.552
SW011	11/11/2022	0902_SW011_221111	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW013	18/11/2022	0902_SW013_221118	Normal	ES2241892	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW014	11/11/2022	0902_SW014_221111	Normal	ES2240927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW015	10/11/2022	0902_SW015_221110	Normal	ES2240927	508	<1	0.03	<1000	508	30	25	66	23.5	484	2.95	1.4	0.22	-	4	64	0.03	<0.01	1400	342	-	56	0.01	1700	0.07	0.415
SW016	10/11/2022	0902_SW016_221110	Normal	ES2240927	224	<1	0.02	<1000	224	40	9.73	47	9.32	181	2.16	1.3	0.09	-	12	26	0.02	<0.01	1300	104	-	7	0.01	800	0.16	0.413
SW016	10/11/2022	0902_QC112_221110	Field_D	ES2240927	224	<1	0.02	<1000	224	30	9.81	48	9.4	184	2.12	1.3	0.1	-	12	27	0.02	<0.01	1300	103	-	7	0.01	700	0.16	0.414
SW018	7/11/2022	0902_SW018_221107	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	7/11/2022	0902_SW019_221107	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	7/11/2022	0902_QC109_221107	Field_D	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	7/11/2022	0902_QC209_221107	Interlab_D	310103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW020	7/11/2022	0902_SW020_221107	Normal	ES2240328	91	<1	<0.01	<1000	91	20	13.7	23	11.9	378	6.73	1.1	0.13	-	10	34	<0.01	<0.01	1100	178	-	57	0.06	1300	0.72	0.116
SW022	3/11/2022	0902_SW022_221103	Normal	ES2239683	150	<1	1.8	<1000	150	160	6.53	28	6.57	103	0.36	0.9	0.14	-	6	14	1.76	0.04	2700	89	-	30	0.09	600	0.37	0.512
SW022	3/11/2022	0902_QC104_221103	Field_D	ES2239683	146	<1	1.8	<1000	146	170	6.42	28	6.44	102	0.19	1	0.17	-	6	14	1.76	0.04	2800	86	-	30	0.08	500	0.34	0.487
SW023	7/11/2022	0902_SW023_221107	Normal	ES2240328	88	<1	0.25	<1000	88	340	12.2	33	11.3	342	3.73	1.1	0.1	-	8	31	0.22	0.03	1400	159	-	38	0.11	1400	1.58	1.13
SW023	7/11/2022	0902_QC204_221107	Interlab_D	310103	91	<5	-	<5000	91	310	-	31	-	270	5	-	-	0.1	7.8	32	0.23	0.03	-	160	32	-	0.15	790	1.6	1.1
SW024	3/11/2022	0902_SW024_221103	Normal	ES2239683	33	<1	0.32	<1000	33	20	1.43	9	1.56	20	-	0.3	0.03	-	2	5	0.32	<0.01	600	15	-	10	0.42	100	0.52	0.012
SW030	7/11/2022	0902_SW030_221107	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW035	3/11/2022	0902_SW035_221103	Normal	ES2239683	73	<1	0.07	<1000	73	110	3.41	15	3.19	64	3.29	1.2	0.14	-	5	7	0.07	<0.01	1300	40	-	7	0.23	200	0.56	0.411
SW037	8/11/2022	0902_SW037_221108	Normal	ES2240328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first-time detection above LOR
	Denotes new exceedence of human health and/or ecological screening crit

Table T7 – Sediment Analytical Results

AECOM

	Perfluorooctanoic Acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR	0.0002	0.0002	0.0002	0.0002	0.0005	0.0005	0.0005	0.0005	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0002	0.001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0005	0.0002	0.0002	0.0002
SD001	0.101	8.53	0.204	8.73	0.511	<0.001	0.0926	3.82	<0.0025	<0.001	<0.0025	<0.0025	<0.001	<0.0025	0.0053	<0.005	0.32	2.27	5.46	0.0347	0.0275	0.0224	0.386	0.128	0.0109	0.0055	1.03	1.13	5.58	29.7
SD001	0.051	6.5	0.069	6.6	0.35	<0.0005	0.046	3.6	<0.005	<0.001	<0.02	<0.005	<0.001	<0.005	0.0038	0.002	0.32	2.6	5.1	0.019	0.014	0.014	0.33	0.093	0.0053	0.0051	0.98	1.2	4.6	26
SD001	0.0926	8.2	0.218	8.42	0.493	<0.001	0.0925	3.52	<0.0025	<0.001	<0.0025	<0.0025	<0.001	<0.0025	0.0051	<0.005	0.318	2.21	5.36	0.0367	0.0291	0.0222	0.423	0.128	0.0112	0.0054	1.02	1.23	5.53	28.9
SD002	0.0053	1.09	0.0864	1.18	<0.001	<0.001	<0.001	0.0019	<0.0025	<0.001	<0.0025	<0.0025	<0.001	<0.0025	0.0048	<0.005	0.0136	0.003	0.014	0.0151	0.0016	0.0072	0.0014	0.0318	0.0055	0.0022	0.0059	0.0058	0.005	1.3
SD003	0.005	0.783	0.068	0.851	<0.001	<0.001	<0.001	0.0026	<0.0025	<0.001	<0.0025	<0.0025	<0.001	<0.0025	0.0046	<0.005	0.007	0.0023	0.0103	0.0097	0.0018	0.0081	<0.001	0.0085	0.0053	0.0019	0.0028	0.0035	0.0062	0.931
SD005	<0.0002	0.0108	0.0003	0.0111	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0111
SD007	<0.0002	0.0045	0.0004	0.0049	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0049
SD008	<0.0002	0.0209	0.0024	0.0233	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0236
SD009	<0.0002	0.0161	0.0018	0.0179	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	<0.0002	<0.0005	<0.0002	0.0002	0.0194
SD011	0.0004	0.0871	0.0075	0.0946	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003	<0.001	0.0021	<0.0002	0.0028	0.0006	<0.0002	0.0008	<0.0002	0.0005	0.0004	<0.0002	0.0008	0.001	0.0006	0.105
SD013	<0.0002	0.014	0.0027	0.0167	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0169
SD014	<0.0002	0.0096	0.0021	0.0117	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	0.0004	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0124
SD015	<0.0002	0.003	0.0006	0.0036	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0036
SD016	<0.0002	0.0069	0.0004	0.0073	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0073
SD018	<0.0002	0.0022	0.0005	0.0027	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0027
SD019	<0.0002	0.0023	<0.0002	0.0023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0023
SD020	<0.0002	0.0007	<0.0002	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0007
SD022	<0.0002	0.01	0.0016	0.0116	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0033	<0.0005	<0.0005	0.0006	<0.0005	0.0002	<0.001	0.0035	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0013	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0211
SD022	<0.0001	0.0068	0.0009	0.0077	<0.0002	<0.0001	<0.0001	<0.0002	<0.001	0.0021	<0.005	<0.001	0.0003	<0.001	0.0001	<0.0002	0.0053	<0.0005	<0.0005	<0.0001	<0.0001	0.0001	<0.0001	0.001	0.0001	<0.0002	<0.005	<0.0005	<0.0005	0.017
SD022	<0.0002	0.0049	0.0007	0.0056	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	0.0011	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0075
SD023	<0.0002	0.002	0.0004	0.0024	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0024
SD023	<0.0001	0.0025	0.0003	0.0029	<0.0002	<0.0001	<0.0001	<0.0002	<0.001	<0.0002	<0.005	<0.001	<0.0002	<0.001	<0.0001	<0.0002	0.0004	<0.0005	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.0001	<0.0002	<0.005	<0.0005	<0.0005	0.0032
SD023	<0.0002	0.0023	0.0005	0.0028	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0028
SD024	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002
SD030	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002
SD035	<0.0002	0.0006	<0.0002	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0002	<0.0002	0.0006

Loc. Code	Date	Field_ID	Sample_Type	Lab_Report #
SD001	7/11/2022	0902_QC106_221107	Field_D	ES2240328
SD001	7/11/2022	0902_QC206_221107	Interlab_D	310103
SD001	7/11/2022	0902_SD001_221107	Normal	ES2240328
SD002	8/11/2022	0902_SD002_221108	Normal	ES2240328
SD003	8/11/2022	0902_SD003_221108	Normal	ES2240328
SD005	11/11/2022	0902_SD005_221111	Normal	ES2240927
SD007	11/11/2022	0902_SD007_221111	Normal	ES2240927
SD008	11/11/2022	0902_SD008_221111	Normal	ES2240927
SD009	18/11/2022	0902_SD009_221118	Normal	ES2241892
SD011	11/11/2022	0902_SD011_221111	Normal	ES2240927
SD013	18/11/2022	0902_SD013_221118	Normal	ES2241892
SD014	11/11/2022	0902_SD014_221111	Normal	ES2240927
SD015	10/11/2022	0902_SD015_221110	Normal	ES2240927
SD016	10/11/2022	0902_SD016_221110	Normal	ES2240927
SD018	7/11/2022	0902_SD018_221107	Normal	ES2240328
SD019	7/11/2022	0902_SD019_221107	Normal	ES2240328
SD020	7/11/2022	0902_SD020_221107	Normal	ES2240328
SD022	3/11/2022	0902_QC102_221103	Field_D	ES2239683
SD022	3/11/2022	0902_QC202_221103	Interlab_D	310103
SD022	3/11/2022	0902_SD022_221103	Normal	ES2239683
SD023	7/11/2022	0902_QC110_221107	Field_D	ES2240328
SD023	7/11/2022	0902_QC210_221107	Interlab_D	310103
SD023	7/11/2022	0902_SD023_221107	Normal	ES2240328
SD024	3/11/2022	0902_SD024_221103	Normal	ES2239683
SD030	7/11/2022	0902_SD030_221107	Normal	ES2240328
SD035	3/11/2022	0902_SD035_221103	Normal	ES2239683

Table T8 - Historical Groundwater Results (PFAS)

AECOM

							PFAS																										
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
MW001	3/07/2017	0902_MW01_030717	Normal	NSW_0902_PFAS			<0.01	<0.01	0.11	**0.11**	0.04	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
MW001	8/11/2019	0902_MW001_191108	Normal	NSW_0902_PFASOMP			<0.01	<0.01	0.10	**0.1**	0.03	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16
MW001	14/05/2020	0902_MW001_200514	Normal	NSW_0902_PFASOMP			<0.01	<0.01	0.13	**0.13**	0.03	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
MW001	12/11/2020	0902_MW001_201112	Normal	NSW_0902_PFASOMP			<0.01	<0.01	0.11	**0.11**	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
MW001	12/11/2020	0902_QC106_201112	Field_D	NSW_0902_PFASOMP			<0.01	<0.01	0.09	**0.09**	0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
MW001	6/05/2021	0902_MW001_210506	Normal	NSW_0902_PFASOMP			<0.01	<0.01	0.12	**0.12**	0.04	0.03	<0.02	<0.02	<0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
MW001	29/11/2021	0902_MW001_211129	Normal	NSW_0902_PFASOMP			<0.01	<0.01	0.12	**0.12**	0.03	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
MW001	29/11/2021	0902_QC112_211129	Field_D	NSW_0902_PFASOMP			<0.01	<0.01	0.14	**0.14**	0.04	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.21
MW001	26/05/2022	0902_MW001_220526	Normal	NSW_0902_PFASOMP			<0.01	<0.01	0.12	**0.12**	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
MW001	11/11/2022	0902_MW001_221111	Normal	NSW_0902_PFASOMP			<0.01	<0.01	0.10	**0.1**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10
MW002	3/07/2017	0902_MW02_030717	Normal	NSW_0902_PFAS			<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	8/11/2019	0902_MW002_191108	Normal	NSW_0902_PFASOMP			<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	14/05/2020	0902_MW002_200514	Normal	NSW_0902_PFASOMP			<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	14/05/2020	0902_QC205_200514	Interlab_D	NSW_0902_PFASOMP			<0.01	<0.02	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.16	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW002	12/11/2020	0902_MW002_201112	Normal	NSW_0902_PFASOMP			<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	12/11/2020	0902_QC203_201112	Interlab_D	NSW_0902_PFASOMP			<0.01	<0.02	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW002	6/05/2021	0902_MW002_210506	Normal	NSW_0902_PFASOMP			<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	29/11/2021	0902_MW002_211129	Normal	NSW_0902_PFASOMP			<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	29/11/2021	0902_QC212_211129	Interlab_D	NSW_0902_PFASOMP			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	<0.01
MW002	26/05/2022	0902_MW002_220526	Normal	NSW_0902_PFASOMP			<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW002	11/11/2022	0902_MW002_221111	Normal	NSW_0902_PFASOMP			<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW004	7/07/2017	0902_MW04_070717	Normal	NSW_0902_PFAS			<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW004	25/11/2021	0902_MW004_211125	Normal	NSW_0902_PFASOMP			<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW004	26/05/2022	0902_MW004_220526	Normal	NSW_0902_PFASOMP			<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW004	11/11/2022	0902_MW004_221111	Normal	NSW_0902_PFASOMP			<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW005	7/07/2017	0902_MW05_070717	Normal	NSW_0902_PFAS			0.18	*2.37*	6.76	**9.13**	0.62	0.53	0.17	<0.02	0.2	0.10	0.45	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.5
MW005	8/11/2019	0902_MW005_191108	Normal	NSW_0902_PFASOMP			<0.05	*0.18*	0.58	**0.76**	0.06	0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	0.87
MW005	13/05/2020	0902_MW005_200513	Normal	NSW_0902_PFASOMP			<0.01	*0.12*	0.38	**0.5**	0.03	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56
MW005	14/05/2020	0902_QC203_200514	Interlab_D	NSW_0902_PFASOMP			<0.01	*0.055*	0.18	**0.235**	0.014	0.013	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW005	12/11/2020	0902_MW005_201112	Normal	NSW_0902_PFASOMP			<0.01	*0.13*	0.44	**0.57**	0.03	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.62
MW005	12/11/2020	0902_QC103_201112	Field_D	NSW_0902_PFASOMP			<0.01	*0.13*	0.33	**0.46**	0.04	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.53
MW005	6/05/2021	0902_MW005_210506	Normal	NSW_0902_PFASOMP			<0.01	*0.04*	0.10	**0.14**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
MW005	25/11/2021	0902_MW005_211125	Normal	NSW_0902_PFASOMP			<0.01	*0.04*	0.08	**0.12**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
MW005	26/05/2022	0902_MW005_220526	Normal	NSW_0902_PFASOMP			<0.01	*0.10*	0.04	**0.14**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
MW005	11/11/2022	0902_MW005_221111	Normal	NSW_0902_PFASOMP			<0.01	*0.03*	0.05	**0.08**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
MW007	10/07/2017	0902_MW07_100717	Normal	NSW_0902_PFAS			<0.01	<0.01	0.16	**0.16**	0.04	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23
MW007	13/11/2019	0902-MW007_191113	Normal	NSW_0902_PFASOMP			<0.01	<0.01	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW007	11/05/2020	0902_MW007_200511	Normal	NSW_0902_PFASOMP			<0.01	<0.01	0.08	**0.08**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
MW007	10/11/2020	0902_MW007_201110	Normal	NSW_0902_PFASOMP			<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW007	3/05/2021	0902_MW007_210503	Normal	NSW_0902_PFASOMP			<0.01	<0.01	0.09	**0.09**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09

Table T8 - Historical Groundwater Results (PFAS)

AECOM

																		PFAS																
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
MW007	3/05/2021	0902_QC100_210503	Field_D	NSW_0902_PFASOMP		<0.01	<0.01	0.10	**0.1**	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
MW007	23/11/2021	0902_MW007_211123	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.05	0.05	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW007	25/05/2022	0902_MW007_220525	Normal	NSW_0902_PFASOMP		<0.01	*0.01*	0.07	**0.08**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
MW007	2/11/2022	0902_MW007_221102	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW008	30/06/2017	0902_MW08_300617	Normal	NSW_0902_PFAS		<0.01	<0.01	0.18	**0.18**	0.05	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27
MW008	14/11/2019	0902_MW008_191114	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.16	**0.16**	0.11	0.08	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43
MW008	11/05/2020	0902_MW008_200511	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.30	**0.3**	0.11	0.09	<0.02	<0.02	0.4	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.96
MW008	10/11/2020	0902_MW008_201110	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.26	**0.26**	0.11	0.10	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.55
MW008	10/11/2020	0902_QC200_201110	Interlab_D	NSW_0902_PFASOMP		<0.01	<0.02	0.23	**0.23**	0.096	0.076	<0.01	<0.01	<0.05	<0.02	0.066	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW008	3/05/2021	0902_MW008_210503	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	0.31	**0.33**	0.16	0.13	<0.02	<0.02	<0.1	0.03	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.81
MW008	23/11/2021	0902_MW008_211123	Normal	NSW_0902_PFASOMP		<0.01	*0.05*	0.56	**0.61**	0.20	0.12	<0.02	<0.02	<0.1	0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.05
MW008	23/11/2021	0902_QC102_211123	Field_D	NSW_0902_PFASOMP		<0.01	*0.06*	0.77	**0.83**	0.22	0.15	<0.02	<0.02	<0.1	0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.34
MW008	25/05/2022	0902_MW008_220525	Normal	NSW_0902_PFASOMP		<0.01	*0.07*	0.43	**0.5**	0.11	0.10	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.78
MW008	25/05/2022	0902_QC201_220525	Interlab_D	NSW_0902_PFASOMP		<0.01	*0.07*	0.53	**0.6**	0.14	0.12	<0.01	<0.02	0.03	<0.02	0.07	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.97
MW008	2/11/2022	0902_MW008_221102	Normal	NSW_0902_PFASOMP		<0.01	*0.37*	0.31	**0.68**	0.09	0.09	<0.02	<0.02	<0.1	0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.97
MW008	2/11/2022	0902_QC100_221102	Field_D	NSW_0902_PFASOMP		<0.01	*0.39*	0.40	**0.79**	0.11	0.10	<0.02	<0.02	<0.1	0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.10
MW008	2/11/2022	0902_QC200_221102	Interlab_D	NSW_0902_PFASOMP		<0.01	*0.34*	0.35	**0.69**	0.09	0.10	<0.01	<0.02	0.02	<0.02	0.06	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.13	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	1.1
MW009	30/06/2017	0902_MW09_300617	Normal	NSW_0902_PFAS		<0.01	*0.06*	0.10	**0.16**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16
MW009	3/05/2021	0902_MW009_210503	Normal	NSW_0902_PFASOMP		<0.01	*0.15*	0.03	**0.18**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
MW009	23/11/2021	0902_MW009_211123	Normal	NSW_0902_PFASOMP		<0.01	*0.06*	0.02	**0.08**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
MW009	25/05/2022	0902_MW009_220525	Normal	NSW_0902_PFASOMP		<0.01	*0.12*	0.03	**0.15**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15
MW009	2/11/2022	0902_MW009_221102	Normal	NSW_0902_PFASOMP		<0.01	*0.12*	0.04	**0.16**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16
MW010	30/06/2017	0902_MW10_300617	Normal	NSW_0902_PFAS		0.02	*0.16*	0.56	**0.72**	0.07	0.05	<0.02	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.96
MW010	14/11/2019	0902_MW010_191114	Normal	NSW_0902_PFASOMP		0.03	*0.88*	0.41	**1.29**	0.05	0.05	0.02	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.54
MW010	11/05/2020	0902_MW010_200511	Normal	NSW_0902_PFASOMP		0.21	*7.62*	3.41	**11**	0.49	0.44	0.15	<0.02	<0.1	0.19	1.04	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.6
MW010	10/11/2020	0902_MW010_201110	Normal	NSW_0902_PFASOMP		<0.01	*0.33*	0.20	**0.53**	0.03	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.64
MW010	3/05/2021	0902_MW010_210503	Normal	NSW_0902_PFASOMP		0.19	*4.67*	3.47	**8.14**	0.54	0.54	0.12	<0.02	0.1	0.22	1.19	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.2
MW010	23/11/2021	0902_MW010_211123	Normal	NSW_0902_PFASOMP		<0.01	*0.16*	0.16	**0.32**	0.04	0.02	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.45
MW010	25/05/2022	0902_MW010_220525	Normal	NSW_0902_PFASOMP		0.32	*5.60*	4.70	**10.3**	0.66	0.69	0.16	<0.02	0.1	0.31	1.81	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.5
MW010	2/11/2022	0902_MW010_221102	Normal	NSW_0902_PFASOMP		0.23	*3.01*	4.20	**7.21**	0.49	0.63	0.11	<0.02	<0.1	0.19	1.34	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.3
MW012	3/07/2017	0902_MW12_030717	Normal	NSW_0902_PFAS		0.22	*0.73*	5.91	**6.64**	2.14	1.21	0.10	<0.02	<0.1	0.42	1.34	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.2
MW012	3/07/2017	0902_QC103_030717	Field_D	NSW_0902_PFAS		0.22	*0.73*	5.99	**6.72**	2.14	1.25	0.11	<0.02	<0.1	0.42	1.36	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.4
MW012	8/11/2019	0902_MW012_191108	Normal	NSW_0902_PFASOMP		**0.99**	*13.8*	21.6	**35.4**	1.87	2.80	0.84	<0.02	0.3	0.64	3.10	0.52	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	46.6
MW012	14/05/2020	0902_MW012_200514	Normal	NSW_0902_PFASOMP		**1.01**	*7.98*	23.0	**31**	3.20	4.11	1.03	0.02	0.5	0.94	4.53	0.71	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	47.1
MW012	12/11/2020	0902_MW012_201112	Normal	NSW_0902_PFASOMP		**0.78**	*5.65*	21.4	**27**	2.54	2.73	0.63	<0.02	0.3	0.72	2.96	0.46	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	38.2
MW012	12/11/2020	0902_QC206_201112	Interlab_D	NSW_0902_PFASOMP		0.44	*2.7*	10	**12.7**	1.7	1.5	0.21	<0.01	0.31	0.48	2	0.29	0.017	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	0.015	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW012	6/05/2021	0902_MW012_210506	Normal	NSW_0902_PFASOMP		0.34	*1.47*	9.97	**11.4**	1.43	1.63	0.21	<0.02	<0.1	0.41	1.97	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.7
MW012	6/05/2021	0902_QC103_210506	Field_D	NSW_0902_PFASOMP		0.31	*1.63*	8.90	**10.5**	1.54	1.72	0.22	<0.02	0.3	0.38	1.65	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16.9
MW012	29/11/2021	0902_MW012_211129	Normal	NSW_0902_PFASOMP		0.12	*0.98*	3.42	**4.4**	0.63	0.54	0.08	<0.02	<0.1	0.13	0.72	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.71
MW012	27/05/2022	0902_MW012_220527	Normal	NSW_0902_PFASOMP		0.06	*0.41*	2.13	**2.54**	0.40	0.42	0.04	<0.02	<0.1	0.08	0.30	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.88

Table T8 - Historical Groundwater Results (PFAS)

					PFAS																														
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					**0.56**			**0.07**																											
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																													
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
MW012	18/11/2022	0902_MW012_221118	Normal	NSW_0902_PFASOMP	0.02	*0.19*	1.33	**1.52**	0.26	0.28	<0.02	<0.02	<0.1	0.04	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.30
MW013	3/07/2017	0902_MW13_030717	Normal	NSW_0902_PFAS	<0.01	*0.08*	1.23	**1.31**	0.38	0.22	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.97
MW013	8/11/2019	0902_MW013_191108	Normal	NSW_0902_PFASOMP	<0.01	*0.30*	34.9	**35.2**	2.36	4.48	0.51	<0.02	0.1	0.12	0.56	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	43.3
MW013	14/05/2020	0902_MW013_200514	Normal	NSW_0902_PFASOMP	0.08	*0.34*	25.0	**25.3**	2.11	3.11	0.28	<0.02	0.4	0.14	0.52	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	32.0
MW013	12/11/2020	0902_MW013_201112	Normal	NSW_0902_PFASOMP	0.12	*0.55*	17.8	**18.4**	1.37	1.58	0.19	<0.02	0.3	0.12	0.42	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	22.5
MW013	6/04/2021	0902_QC203_210506	Interlab_D	NSW_0902_PFASOMP	0.015	*0.13*	4.7	**4.83**	0.52	0.53	0.02	<0.01	0.12	0.037	0.13	0.014	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW013	6/05/2021	0902_MW013_210506	Normal	NSW_0902_PFASOMP	0.03	*0.11*	5.64	**5.75**	0.55	0.65	0.05	<0.02	<0.1	0.05	0.23	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.33
MW013	29/11/2021	0902_MW013_211129	Normal	NSW_0902_PFASOMP	0.01	*0.08*	1.85	**1.93**	0.35	0.28	<0.02	<0.02	<0.1	0.02	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.74
MW013	27/05/2022	0902_MW013_220527	Normal	NSW_0902_PFASOMP	0.02	*0.10*	1.92	**2.02**	0.34	0.27	0.02	<0.02	<0.1	0.05	0.26	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.00
MW013	18/11/2022	0902_MW013_221118	Normal	NSW_0902_PFASOMP	0.02	*0.08*	1.78	**1.86**	0.31	0.32	<0.02	<0.02	<0.1	0.05	0.28	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.84
MW014	3/07/2017	0902_MW14_030717	Normal	NSW_0902_PFAS	<0.01	*0.04*	0.90	**0.94**	0.44	0.26	<0.02	<0.02	<0.1	0.04	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.84
MW014	8/11/2019	0902_MW014_191108	Normal	NSW_0902_PFASOMP	0.02	*0.24*	0.14	**0.38**	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.49
MW014	14/05/2020	0902_MW014_200514	Normal	NSW_0902_PFASOMP	0.01	<0.01	1.11	**1.11**	0.32	0.24	<0.02	<0.02	<0.1	0.04	0.24	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.96
MW014	12/11/2020	0902_MW014_201112	Normal	NSW_0902_PFASOMP	0.01	*0.07*	1.08	**1.15**	0.30	0.20	<0.02	<0.02	<0.1	0.04	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.87
MW014	6/05/2021	0902_MW014_210506	Normal	NSW_0902_PFASOMP	<0.01	*0.07*	1.38	**1.45**	0.34	0.32	0.02	<0.02	<0.1	0.05	0.29	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.49
MW014	29/11/2021	0902_MW014_211129	Normal	NSW_0902_PFASOMP	0.01	*0.06*	1.25	**1.31**	0.37	0.28	0.02	<0.02	<0.1	0.04	0.28	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.33
MW014	27/05/2022	0902_MW014_220527	Normal	NSW_0902_PFASOMP	0.02	*0.10*	1.56	**1.66**	0.39	0.39	0.04	<0.02	<0.1	0.07	0.32	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.92
MW014	18/11/2022	0902_MW014_221118	Normal	NSW_0902_PFASOMP	0.01	*0.10*	1.27	**1.37**	0.29	0.29	<0.02	<0.02	<0.1	0.05	0.29	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.32
MW015	3/07/2017	0902_MW15_030717	Normal	NSW_0902_PFAS	0.20	*3.92*	5.07	**8.99**	0.95	0.73	0.24	<0.02	<0.1	0.20	0.64	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.0
MW015	8/11/2019	0902_MW015_191108	Normal	NSW_0902_PFASOMP	0.18	*3.73*	4.38	**8.11**	0.55	0.68	0.25	<0.02	<0.1	0.14	0.70	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.7
MW015	14/05/2020	0902_MW015_200514	Normal	NSW_0902_PFASOMP	0.06	<0.01	1.10	**1.1**	0.15	0.13	0.06	<0.02	<0.1	0.03	0.17	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.72
MW015	12/11/2020	0902_MW015_201112	Normal	NSW_0902_PFASOMP	0.09	*2.02*	2.09	**4.11**	0.24	0.21	0.09	<0.02	<0.1	0.05	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.05
MW015	6/05/2021	0902_MW015_210506	Normal	NSW_0902_PFASOMP	0.06	*0.86*	1.33	**2.19**	0.15	0.17	0.06	<0.02	<0.1	0.03	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.89
MW015	29/11/2021	0902_MW015_211129	Normal	NSW_0902_PFASOMP	0.07	*1.79*	2.05	**3.84**	0.28	0.28	0.10	<0.02	<0.1	0.04	0.31	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.96
MW015	27/05/2022	0902_MW015_220527	Normal	NSW_0902_PFASOMP	0.13	*3.02*	3.27	**6.29**	0.41	0.43	0.19	<0.02	<0.1	0.09	0.43	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.03
MW015	18/11/2022	0902_MW015_221118	Normal	NSW_0902_PFASOMP	0.12	*3.63*	3.40	**7.03**	0.42	0.50	0.13	<0.02	0.1	0.09	0.50	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.94
MW016	7/07/2017	0902_MW16_070717	Normal	NSW_0902_PFAS	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	8/11/2019	0902_MW016_191108	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	14/05/2020	0902_MW016_200514	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	12/11/2020	0902_MW016_201112	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	6/05/2021	0902_MW016_210506	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	29/11/2021	0902_MW016_211129	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	29/11/2021	0902_QC110_211129	Field_D	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW016	26/05/2022	0902_MW016_220526	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	<0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
MW016	11/11/2022	0902_MW016_221111	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW017	3/07/2017	0902_MW17_030717	Normal	NSW_0902_PFAS	<0.01	*1.03*	5.06	**6.09**	0.68	0.56	0.06	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.42
MW017	8/11/2019	0902_MW017_191108	Normal	NSW_0902_PFASOMP	0.04	*1.71*	5.17	**6.88**	0.37	0.55	0.09	<0.02	<0.1	<0.02	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.10
MW017	14/05/2020	0902_MW017_200514	Normal	NSW_0902_PFASOMP	0.30	*6.92*	12.0	**18.9**	0.43	0.66	0.42	<0.02	0.6	0.21	1.03	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	22.7
MW017	12/11/2020	0902_MW017_201112	Normal	NSW_0902_PFASOMP	0.14	*5.93*	8.78	**14.7**	0.33	0.39	0.19	<0.02	0.1	0.07	0.33	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16.3
MW017	6/05/2021	0902_MW017_210506	Normal	NSW_0902_PFASOMP	0.08	*1.90*	7.01	**8.91**	0.41	0.59	0.15	<0.02	<0.1	0.05	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.4

Table T8 - Historical Groundwater Results (PFAS)

AECOM

Table T8 - Historical Groundwater Results (PFAS)

					PFAS																													
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW023	8/11/2022	0902_MW023_221108	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	0.11	**0.13**	0.04	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.21
MW024	10/07/2017	0902_MW24_100717	Normal	NSW_0902_PFAS	<0.01	*0.37*	0.96	**1.33**	0.73	0.54	<0.02	<0.02	<0.1	<0.02	0.28	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.88
MW024	14/11/2019	0902_MW024_191114	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	0.03	0.05	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
MW024	11/05/2020	0902_MW024_200511	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.04	0.04	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW024	10/11/2020	0902_MW024_201110	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	0.05	0.06	0.03	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW024	3/05/2021	0902_MW024_210503	Normal	NSW_0902_PFASOMP	<0.01	*0.07*	0.27	**0.34**	0.15	0.10	<0.02	<0.02	<0.1	0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.70
MW024	23/11/2021	0902_MW024_211123	Normal	NSW_0902_PFASOMP	<0.01	*0.06*	0.28	**0.34**	0.30	0.14	<0.02	<0.02	<0.1	0.04	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.00
MW024	25/05/2022	0902_MW024_220525	Normal	NSW_0902_PFASOMP	<0.01	*0.12*	0.36	**0.48**	0.22	0.17	<0.02	<0.02	<0.1	0.03	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.02
MW024	2/11/2022	0902_MW024_221102	Normal	NSW_0902_PFASOMP	<0.01	*0.30*	0.25	**0.55**	0.10	0.10	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.88
MW024	2/11/2022	0902_QC101_221102	Field_D	NSW_0902_PFASOMP	<0.01	*0.23*	0.31	**0.54**	0.15	0.14	<0.02	<0.02	<0.1	0.04	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.98
MW024	2/11/2022	0902_QC201_221102	Interlab_D	NSW_0902_PFASOMP	<0.01	*0.09*	0.39	**0.48**	0.20	0.19	<0.01	<0.02	0.03	0.03	0.09	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	1.0
MW025	5/07/2017	0902_MW25_050717	Normal	NSW_0902_PFAS	<0.01	<0.01	0.07	0.07	0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW025	13/11/2019	0902-MW025_191113	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW025	12/05/2020	0902_MW025_200512	Normal	NSW_0902_PFASOMP	<0.01	*0.03*	0.05	**0.08**	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
MW025	11/11/2020	0902_MW025_201111	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW025	4/05/2021	0902_MW025_210504	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW025	22/11/2021	0902_MW025_211122	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW025	24/05/2022	0902_MW025_220524	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW025	7/11/2022	0902_MW025_221107	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	0.05	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW025	7/11/2022	0902_QC108_221107	Field_D	NSW_0902_PFASOMP	<0.01	*0.02*	0.04	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW026	5/07/2017	0902_MW26_050717	Normal	NSW_0902_PFAS	0.39	*1.23*	12.7	**13.9**	1.02	1.31	0.38	<0.02	<0.1	0.14	0.84	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.2
MW026	13/11/2019	0902-MW026_191113	Normal	NSW_0902_PFASOMP	0.12	*0.41*	2.44	**2.85**	0.28	0.24	0.11	<0.02	<0.1	0.08	0.38	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.12
MW026	11/05/2020	0902_MW026_200511	Normal	NSW_0902_PFASOMP	0.10	*0.37*	2.21	**2.58**	0.22	0.34	0.09	<0.02	<0.1	0.06	0.30	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.74
MW026	11/11/2020	0902_MW026_201111	Normal	NSW_0902_PFASOMP	0.03	*0.18*	0.82	**1**	0.10	0.11	0.03	<0.02	<0.1	0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.40
MW026	4/05/2021	0902_MW026_210504	Normal	NSW_0902_PFASOMP	0.15	*0.48*	3.16	**3.64**	0.42	0.40	0.14	<0.02	<0.1	0.09	0.46	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.38
MW026	22/11/2021	0902_MW026_211122	Normal	NSW_0902_PFASOMP	0.18	*0.74*	3.84	**4.58**	0.78	0.60	0.15	<0.02	<0.1	0.16	0.73	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.29
MW026	24/05/2022	0902_MW026_220524	Normal	NSW_0902_PFASOMP	0.21	*1.13*	4.82	**5.95**	0.61	0.80	0.24	<0.02	<0.1	0.14	0.60	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.67
MW026	7/11/2022	0902_MW026_221107	Normal	NSW_0902_PFASOMP	0.10	*0.60*	2.35	**2.95**	0.36	0.40	0.09	<0.02	<0.1	0.06	0.36	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.38
MW027	10/07/2017	0902_MW27_100717	Normal	NSW_0902_PFAS	<0.01	*0.08*	0.48	**0.56**	0.11	0.10	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.82
MW027	13/11/2019	0902-MW027_191113	Normal	NSW_0902_PFASOMP	0.02	*0.18*	0.92	**1.1**	0.19	0.17	0.02	<0.02	<0.1	0.02	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.65
MW027	11/05/2020	0902_MW027_200511	Normal	NSW_0902_PFASOMP	0.02	*0.19*	0.95	**1.14**	0.19	0.23	<0.02	<0.02	<0.1	<0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.69
MW027	10/11/2020	0902_MW027_201110	Normal	NSW_0902_PFASOMP	0.02	*0.22*	0.77	**0.99**	0.18	0.21	<0.02	<0.02	<0.1	0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.51
MW027	10/11/2020	0902_QC101_201110	Field_D	NSW_0902_PFASOMP	0.02	*0.24*	0.87	**1.11**	0.19	0.20	<0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.61
MW027	3/05/2021	0902_MW027_210503	Normal	NSW_0902_PFASOMP	0.03	*0.31*	0.98	**1.29**	0.19	0.18	0.03	<0.02	<0.1	0.03	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.87
MW027	23/11/2021	0902_MW027_211123	Normal	NSW_0902_PFASOMP	0.02	*0.31*	0.97	**1.28**	0.23	0.17	0.02	<0.02	<0.1	0.03	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.92
MW027	25/05/2022	0902_MW027_220525	Normal	NSW_0902_PFASOMP	0.02	*0.49*	1.24	**1.73**	0.23	0.26	0.03	<0.02	<0.1	0.03	0.17	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.49
MW027	25/05/2022	0902_QC103_220525	Field_D	NSW_0902_PFASOMP	0.03	*0.54*	1.60	**2.14**	0.30	0.34	0.04	<0.02	<0.1	0.04	0.19	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.11
MW027	2/11/2022	0902_MW027_221102	Normal	NSW_0902_PFASOMP	0.03	*0.49*	1.28	**1.77**	0.22	0.26	0.03	<0.02	<0.1	0.04	0.21	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.58
MW028	10/07/2017	0902_MW28_100717	Normal	NSW_0902_PFAS	0.10	*0.03*	8.70	**8.73**	4.32	3.53	<0.02	<0.02	0.6	0.86	4.38	0.70	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	23.2
MW028	13/11/2019	0902-MW028_191113	Normal	NSW_0902_PFASOMP	0.01	*0.24*	0.10	**0.34**	0.12	0.03	<0.02	<0.02	<0.1	0.04	0.30	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.28	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.14

Table T8 - Historical Groundwater Results (PFAS)

																																		PFAS
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW028	11/05/2020	0902_MW028_200511	Normal	NSW_0902_PFASOMP	0.10	*0.04*	9.46	**9.5**	3.52	4.13	<0.02	<0.02	0.6	1.00	5.91	0.67	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	25.4
MW028	10/11/2020	0902_MW028_201110	Normal	NSW_0902_PFASOMP	0.07	*0.04*	6.49	**6.53**	2.45	2.57	<0.02	<0.02	0.6	0.86	3.57	0.56	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.2
MW028	3/05/2021	0902_MW028_210503	Normal	NSW_0902_PFASOMP	0.16	*0.04*	12.1	**12.1**	3.79	4.20	<0.02	<0.02	0.7	1.31	6.08	0.86	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	29.2
MW028	23/11/2021	0902_MW028_211123	Normal	NSW_0902_PFASOMP	0.07	*0.12*	4.31	**4.43**	1.70	1.28	<0.02	<0.02	0.2	0.43	2.18	0.26	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.6
MW028	25/05/2022	0902_MW028_220525	Normal	NSW_0902_PFASOMP	0.14	*0.09*	9.73	**9.82**	2.12	2.84	0.03	<0.02	0.4	0.47	2.87	0.54	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.2
MW028	2/11/2022	0902_MW028_221102	Normal	NSW_0902_PFASOMP	0.24	*0.10*	16.5	**16.6**	2.97	4.49	0.02	<0.02	0.5	1.00	5.00	0.74	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	31.6
MW030	14/11/2009	0902_QC201_191114	Interlab_D	NSW_0902_PFASOMP	0.11	*0.86*	1.7	**2.56**	0.23	0.21	0.043	<0.01	0.13	0.048	0.24	0.043	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW030	5/11/2013	BH8-8	Normal	ACTNSW_Hist_202009-2	<0.02	*0.08*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW030	3/07/2017	0902_MW30_030717	Normal	NSW_0902_PFAS	0.18	*1.21*	3.82	**5.03**	0.52	0.36	0.10	<0.02	<0.1	0.06	0.34	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.66
MW030	14/11/2019	0902_MW030_191114	Normal	NSW_0902_PFASOMP	0.17	*1.06*	2.06	**3.12**	0.32	0.32	0.07	<0.02	<0.1	0.06	0.32	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.44
MW030	13/05/2020	0902_MW030_200513	Normal	NSW_0902_PFASOMP	0.19	*1.27*	2.22	**3.49**	0.35	0.31	0.09	<0.02	<0.1	0.07	0.35	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.92
MW030	13/05/2020	0902_QC202_200513	Interlab_D	NSW_0902_PFASOMP	0.12	*0.83*	1.6	**2.43**	0.28	0.26	0.048	<0.01	0.084	0.053	0.24	0.053	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW030	11/11/2020	0902_MW030_201111	Normal	NSW_0902_PFASOMP	0.20	*1.62*	2.50	**4.12**	0.36	0.49	0.12	<0.02	0.1	0.09	0.42	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.99
MW030	11/11/2020	0902_QC102_201111	Field_D	NSW_0902_PFASOMP	0.19	*1.47*	2.42	**3.89**	0.34	0.49	0.10	<0.02	0.1	0.08	0.41	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.68
MW030	3/05/2021	0902_MW030_210503	Normal	NSW_0902_PFASOMP	0.11	*1.07*	1.84	**2.91**	0.28	0.27	0.07	<0.02	<0.10	0.06	0.30	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.06
MW030	23/11/2021	0902_MW030_211123	Normal	NSW_0902_PFASOMP	0.12	*0.94*	1.57	**2.51**	0.28	0.21	0.05	<0.02	<0.1	0.05	0.30	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.57
MW030	23/11/2021	0902_QC205_211123	Interlab_D	NSW_0902_PFASOMP	0.09	*0.69*	1.3	**2**	0.20	0.20	0.04	<0.02	0.04	0.04	0.20	0.04	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	2.8
MW030	26/05/2022	0902_MW030_220526	Normal	NSW_0902_PFASOMP	0.07	*0.39*	1.03	**1.42**	0.17	0.18	0.03	<0.02	<0.1	0.02	0.16	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.09
MW030	11/11/2022	0902_MW030_221111	Normal	NSW_0902_PFASOMP	0.12	*0.75*	1.47	**2.22**	0.25	0.23	0.05	<0.02	<0.1	0.05	0.25	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.22
MW030	7/12/2022	0902_MW030_221207	Normal	NSW_0902_PFASMGMT	0.30	*1.9*	3.1	**5**	0.44	0.47	0.11	<0.02	0.1	0.1	0.53	0.11	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	7.2
MW032	4/07/2017	0902_MW32_040717	Normal	NSW_0902_PFAS	0.50	*5.98*	25.4	**31.4**	4.09	4.67	0.64	<0.02	<0.1	0.53	3.10	0.45	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	45.4
MW032	18/06/2019	MW32_180619	Normal	NSW_0902_FSBGME	0.39	*4.70*	13.6	**18.3**	2.04	2.68	0.56	<0.02	0.3	0.53	3.15	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	28.2
MW032	28/11/2019	0902_MW032_191128	Normal	NSW_0902_PFASOMP	0.51	*4.18*	15.6	**19.8**	2.88	3.73	0.67	<0.02	0.3	0.61	4.24	0.32	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	33.0
MW032	11/05/2020	0902_MW032_200512	Normal	NSW_0902_PFASOMP	0.43	*5.97*	15.2	**21.2**	2.20	4.34	0.71	<0.02	1.0	0.52	3.28	0.31	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.0
MW032	11/11/2020	0902_MW032_201111	Normal	NSW_0902_PFASOMP	0.28	*4.18*	9.14	**13.3**	1.46	1.78	0.53	<0.02	1.0	0.36	1.96	0.20	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	20.9
MW032	5/05/2021	0902_MW032_210505	Normal	NSW_0902_PFASOMP	0.20	*0.34*	5.35	**5.69**	1.10	1.05	0.18	<0.02	<0.1	0.23	1.26	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.88
MW032	24/11/2021	0902_MW032_211124	Normal	NSW_0902_PFASOMP	0.39	*4.20*	13.7	**17.9**	2.51	2.42	0.51	<0.02	1.0	0.51	3.56	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	29.1
MW032	24/05/2022	0902_MW032_220524	Normal	NSW_0902_PFASOMP	0.30	*2.99*	9.51	**12.5**	1.30	1.92	0.37	<0.02	0.5	0.21	1.54	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.8
MW032	10/11/2022	0902_MW032_221110	Normal	NSW_0902_PFASOMP	0.42	*3.63*	13.1	**16.7**	2.05	2.09	0.30	<0.02	0.6	0.44	2.40	0.25	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	25.3
MW033	4/07/2017	0902_MW33_040717	Normal	NSW_0902_PFAS	0.04	*0.07*	4.77	**4.84**	0.55	0.65	0.02	<0.02	<0.1	0.10	0.45	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.73
MW033	18/06/2019	MW33_180619	Normal	NSW_0902_FSBGME	0.01	*0.05*	1.44	**1.49**	0.15	0.22	<0.02	<0.02	<0.1	0.06	0.31	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.26
MW033	28/11/2019	0902_MW033_191128	Normal	NSW_0902_PFASOMP	0.01	*0.07*	0.52	**0.59**	0.04	0.05	<0.02	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.78
MW033	11/05/2020	0902_MW033_200512	Normal	NSW_0902_PFASOMP	0.01	*0.14*	0.45	**0.59**	0.04	0.05	<0.02	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.78
MW033	11/11/2020	0902_MW033_201111	Normal	NSW_0902_PFASOMP	<0.01	*0.11*	0.10	**0.21**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.21
MW033	5/05/2021	0902_MW033_210505	Normal	NSW_0902_PFASOMP	0.36	*3.12*	14.2	**17.3**	2.05	2.66	0.57	<0.02	1.1	0.54	2.91	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	27.8
MW033	24/11/2021	0902_MW033_211124	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	0.10	**0.12**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
MW033	24/05/2022	0902_MW033_220524	Normal	NSW_0902_PFASOMP	0.04	*0.26*	0.03	**0.29**	<0.02	<0.02	<0.02	<0.02	<0.1	0.08	0.07	0.06	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56
MW033	10/11/2022	0902_MW033_221110	Normal	NSW_0902_PFASOMP	0.01	*0.25*	0.03	**0.28**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.31
MW034	4/07/2017	0902_MW34_040717	Normal	NSW_0902_PFAS	0.22	*0.50*	7.58	**8.08**	1.47	1.57	0.22	<0.02	<0.1	0.18	1.06	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.0
MW034	18/06/2019	MW34_180619	Normal	NSW_0902_FSBGME	0.12	*0.26*	3.56	**3.82**	0.67	0.78	0.13	<0.02	<0.1	0.16	0.97	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.77

Table T8 - Historical Groundwater Results (PFAS)

AECOM

Table T8 - Historical Groundwater Results (PFAS)

AECOM

						PFAS																												
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
MW041	25/05/2022	0902_MW041_220525	Normal	NSW_0902_PFASOMP		<0.01	*0.08*	0.08	**0.16**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
MW041	25/05/2022	0902_QC202_220525	Interlab_D	NSW_0902_PFASOMP		<0.01	*0.07*	0.09	**0.16**	0.01	<0.01	<0.01	<0.02	0.04	<0.02	0.03	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.02	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.25
MW041	2/11/2022	0902_MW041_221102	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW042	10/07/2017	0902_MW42_100717	Normal	NSW_0902_PFAS		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW042	13/11/2019	0902-MW042_191113	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW042	11/05/2020	0902_MW042_200511	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW042	10/11/2020	0902_MW042_201110	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW042	3/05/2021	0902_MW042_210503	Normal	NSW_0902_PFASOMP		<0.01	*0.16*	0.03	**0.19**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
MW042	23/11/2021	0902_MW042_211123	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW042	25/05/2022	0902_MW042_220525	Normal	NSW_0902_PFASOMP		<0.01	*0.12*	0.01	**0.13**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
MW042	2/11/2022	0902_MW042_221102	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	<0.01	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW043	10/07/2017	0902_MW43_100717	Normal	NSW_0902_PFAS		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW043	13/11/2019	0902-MW043_191113	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW043	11/05/2020	0902_MW043_200511	Normal	NSW_0902_PFASOMP		<0.01	*0.07*	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW043	10/11/2020	0902_MW043_201110	Normal	NSW_0902_PFASOMP		<0.01	*0.12*	<0.02	**0.12**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
MW043	3/05/2021	0902_MW043_210503	Normal	NSW_0902_PFASOMP		<0.01	*0.06*	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW043	23/11/2021	0902_MW043_211123	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	0.01	0.03	0.08	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW043	25/05/2022	0902_MW043_220525	Normal	NSW_0902_PFASOMP		<0.01	*0.15*	0.02	**0.17**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
MW043	2/11/2022	0902_MW043_221102	Normal	NSW_0902_PFASOMP		<0.01	*0.13*	0.03	**0.16**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16
MW044	6/07/2017	0902_MW44_060717	Normal	NSW_0902_PFAS		<0.01	<0.01	0.08	**0.08**	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
MW044	7/04/2021	0902_QC205_210507	Interlab_D	NSW_0902_PFASOMP		<0.01	*0.038*	0.038	**0.076**	0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW044	7/05/2021	0902_MW044_210507	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	0.04	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW045	6/07/2017	0902_MW45_060717	Normal	NSW_0902_PFAS		<0.01	<0.01	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW045	13/11/2019	0902-MW045_191113	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	0.04	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW045	12/05/2020	0902_MW045_200512	Normal	NSW_0902_PFASOMP		<0.01	*0.05*	0.06	**0.11**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW045	10/11/2020	0902_MW045_201110	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW045	10/11/2020	0902_QC201_201110	Interlab_D	NSW_0902_PFASOMP		<0.01	<0.02	0.028	0.028	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW045	7/05/2021	0902_MW045_210507	Normal	NSW_0902_PFASOMP		<0.01	*0.12*	0.07	**0.19**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
MW045	21/11/2022	0902_MW045_221121	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	0.06	**0.09**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09
MW046	6/07/2017	0902_MW46_060717	Normal	NSW_0902_PFAS		<0.01	<0.01	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW046	13/11/2019	0902-MW046_191113	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	0.05	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW046	12/05/2020	0902_MW046_200512	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	0.07	**0.11**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW046	10/11/2020	0902_MW046_201110	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW046	4/05/2021	0902_MW046_210504	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW046	22/11/2021	0902_MW046_211122	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW046	22/11/2021	0902_QC201_211122	Interlab_D	NSW_0902_PFASOMP		<0.01	<0.01	0.03	0.03	0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.04
MW046	24/05/2022	0902_MW046_220524	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW046	7/11/2022	0902_MW046_221107	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW046	7/11/2022	0902_QC208_221107	Interlab_D	NSW_0902_PFASOMP		<0.01	<0.01	0.04	0.04	0.01	0.01	<0.01	<0.02	<0.02	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.05	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.13
MW047	6/07/2017	0902_MW47_060717	Normal	NSW_0902_PFAS		**0.60**	*8.61*	14.0	**22.6**	4.00	2.71	0.59	<0.02	<0.1	0.59	1.74	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	33.1

Table T8 - Historical Groundwater Results (PFAS)

																			PFAS																	
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					**0.56**			**0.07**																											
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																													
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
MW047	13/11/2019	0902-MW047_191113	Normal	NSW_0902_PFASOMP	0.56	*6.87*	13.8	**20.7**	2.47	2.70	0.59	<0.02	0.2	0.50	2.61	0.32	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	30.6
MW047	11/05/2020	0902_MW047_200511	Normal	NSW_0902_PFASOMP	0.47	*6.80*	11.8	**18.6**	1.97	2.63	0.61	<0.02	0.2	0.41	1.91	0.33	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	27.1
MW047	10/11/2020	0902_MW047_201110	Normal	NSW_0902_PFASOMP	0.34	*3.93*	7.22	**11.2**	1.36	2.42	0.39	<0.02	0.1	0.31	1.35	0.25	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.7
MW047	3/05/2021	0902_MW047_210503	Normal	NSW_0902_PFASOMP	0.37	*3.08*	8.66	**11.7**	1.55	1.75	0.32	<0.02	0.2	0.34	1.44	0.24	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.0
MW047	23/11/2021	0902_MW047_211123	Normal	NSW_0902_PFASOMP	0.38	*5.18*	8.85	**14**	1.91	1.64	0.35	<0.02	0.1	0.32	1.77	0.22	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	20.7
MW047	25/05/2022	0902_MW047_220525	Normal	NSW_0902_PFASOMP	0.03	*0.82*	0.60	**1.42**	0.10	0.12	0.04	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.80
MW047	2/11/2022	0902_MW047_221102	Normal	NSW_0902_PFASOMP	0.02	*0.55*	0.56	**1.11**	0.09	0.11	0.03	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.45
MW048	5/07/2017	0902_MW48_050717	Normal	NSW_0902_PFAS	<0.01	<0.01	0.20	**0.2**	0.07	0.08	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
MW048	13/11/2019	0902-MW048_191113	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.18	**0.18**	0.05	0.05	<0.02	<0.02	<0.1	0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
MW048	11/05/2020	0902_MW048_200511	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	0.16	**0.17**	0.05	0.06	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.36
MW048	10/11/2020	0902_MW048_201110	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.09	**0.09**	0.04	0.05	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23
MW048	3/05/2021	0902_MW048_210503	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.12	**0.12**	0.06	0.05	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29
MW048	23/11/2021	0902_MW048_211123	Normal	NSW_0902_PFASOMP	<0.01	*0.05*	0.17	**0.22**	0.10	0.06	<0.02	<0.02	<0.1	0.03	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56
MW048	25/05/2022	0902_MW048_220525	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.25	**0.25**	0.10	0.11	<0.02	<0.02	<0.1	0.02	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.62
MW048	2/11/2022	0902_MW048_221102	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.37	**0.37**	0.12	0.13	<0.02	<0.02	<0.1	0.03	0.20	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.85
MW050	6/07/2017	0902_MW50_060717	Normal	NSW_0902_PFAS	**0.90**	*22.1*	8.86	**31**	1.56	1.25	0.62	0.04	0.6	0.69	2.32	0.43	0.04	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.29	0.16	<0.05	0.08	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	40.0
MW050	6/07/2017	0902_QC104_060717	Field_D	NSW_0902_PFAS	**0.75**	*17.4*	7.68	**25.1**	1.74	1.11	0.48	<0.02	<0.1	0.79	1.68	0.24	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.24	0.09	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	32.2
MW050	13/11/2019	0902-MW050_191113	Normal	NSW_0902_PFASOMP	0.25	*6.07*	1.97	**8.04**	0.19	0.18	0.16	<0.02	0.1	0.24	0.57	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.94
MW050	15/05/2020	0902_MW050_200515	Normal	NSW_0902_PFASOMP	**0.60**	*9.50*	5.84	**15.3**	0.85	0.88	0.35	0.04	0.3	0.60	1.74	0.32	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.13	0.06	<0.05	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	21.3
MW050	15/05/2020	0902_QC107_200515	Field_D	NSW_0902_PFASOMP	0.40	*6.32*	4.14	**10.5**	0.50	0.68	0.26	<0.02	0.2	0.37	1.13	0.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.3
MW050	10/11/2020	0902_MW050_201110	Normal	NSW_0902_PFASOMP	0.36	*8.40*	3.20	**11.6**	0.47	0.56	0.30	0.02	0.2	0.32	1.00	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.19	<0.05	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	15.2
MW050	3/05/2021	0902_MW050_210503	Normal	NSW_0902_PFASOMP	0.35	*9.90*	2.95	**12.8**	0.50	0.42	0.32	<0.02	0.2	0.34	0.96	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.15	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16.3
MW050	23/11/2021	0902_MW050_211123	Normal	NSW_0902_PFASOMP	0.13	*4.96*	1.30	**6.26**	0.18	0.14	0.10	<0.02	<0.1	0.11	0.39	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.49
MW050	23/11/2021	0902_QC203_211123	Interlab_D	NSW_0902_PFASOMP	0.12	*4.1*	1.2	**5.3**	0.14	0.13	0.11	<0.02	0.08	0.1	0.29	0.05	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.09	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	6.4
MW050	25/05/2022	0902_MW050_220525	Normal	NSW_0902_PFASOMP	0.37	*10.2*	5.51	**15.7**	1.15	1.33	0.42	<0.02	0.4	0.32	1.57	0.24	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.15	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	21.7
MW050	2/11/2022	0902_MW050_221102	Normal	NSW_0902_PFASOMP	**0.99**	*24.4*	13.4	**37.8**	2.94	3.67	1.00	0.03	0.7	1.16	5.04	0.61	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.14	0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	54.2
MW051	6/07/2017	0902_MW51_060717	Normal	NSW_0902_PFAS	**9.69**	*167*	267	**434**	33.6	33.9	14.4	<0.02	<0.1	7.88	38.7	5.31	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	0.10	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	578
MW051	13/11/2019	0902-MW051_191113	Normal	NSW_0902_PFASOMP	**18.8**	*102*	371	**473**	40.4	51.1	23.2	<0.02	8.8	13.9	61.3	8.76	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	699
MW051	11/05/2020	0902_MW051_200511	Normal	NSW_0902_PFASOMP	**3.37**	*74.4*	71.0	**145**	6.68	11.8	6.60	<0.05	2.1	2.96	11.3	1.33	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	0.09	<0.05	<0.05	0.06	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	192
MW051	10/11/2020	0902_MW051_201110	Normal	NSW_0902_PFASOMP	**0.87**	*37.5*	13.9	**51.4**	1.48	1.56	0.96	0.05	0.7	0.95	2.73	0.44	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	61.2
MW051	3/04/2021	0902_QC200_210503	Interlab_D	NSW_0902_PFASOMP	**14**	*83*	250	**333**	46	39	11	<0.01	10	16	68	6.6	0.061	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	0.084	<0.01	<0.01	0.019	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW051	3/05/2021	0902_MW051_210503	Normal	NSW_0902_PFASOMP	**11.2**	*80.0*	287	**367**	36.7	46.5	22.6	0.13	10.7	10.4	85.3	4.20	0.09	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	595
MW051	23/11/2021	0902_MW051_211123	Normal	NSW_0902_PFASOMP	***39.4***	*239*	656	**895**	78.0	63.5	59.2	0.10	16.1	22.2	130	13.8	0.15	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.14	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1,320
MW051	25/05/2022	0902_MW051_220525	Normal	NSW_0902_PFASOMP	***34.2***	*274*	519	**793**	48.5	64.2	64.6	0.07	12.7	12.3	81.5	11.3	0.13	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1,120
MW051	2/11/2022	0902_MW051_221102	Normal	NSW_0902_PFASOMP	***65.3***	*660*	1,120	**1,780**	96.4	149	125	<0.05	20.8	36.2	175	21.3	0.50	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	0.24	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	2,470
MW052	6/07/2017	0902_MW52_060717	Normal	NSW_0902_PFAS	0.31	*0.20*	24.9	**25.1**	16.9	8.99	0.06	<0.02	<0.1	3.19	10.8	0.53	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	65.9
MW052	13/11/2019	0902-MW052_191113	Normal	NSW_0902_PFASOMP	0.44	*0.22*	42.8	**43**	12.8	11.5	0.13	<0.02	2.1	3.89	20.4	1.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	95.5
MW052	11/05/2020	0902_MW052_200511	Normal	NSW_0902_PFASOMP	0.40	*0.26*	39.6	**39.9**	13.4	14.5	0.10	<0.02	1.9	3.14	18.7	1.21	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	93.2
MW052	10/11/2020	0902_MW052_201110	Normal	NSW_0902_PFASOMP	0.30	*0.19*	23.9	**24.1**	7.63	7.56	0.08	<0.02	1.5	2.21	11.0	0.75	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	55.1
MW052	3/05/2021	0902_MW052_210503	Normal	NSW_0902_PFASOMP	0.36	*0.27*	14.2	**14.5**	5.03	4.54	0.16	<0.02	1.8	2.70	4.86	0.90	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.8

Table T8 - Historical Groundwater Results (PFAS)

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					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW065	22/11/2021	0902_QC101_211122	Field_D	NSW_0902_PFASOMP	<0.01	*0.01*	0.25	**0.26**	0.05	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35
MW065	24/05/2022	0902_MW065_220524	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	0.29	**0.3**	0.07	0.05	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
MW065	2/11/2022	0902_MW065_221102	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	0.39	**0.41**	0.06	0.05	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.54
MW066	4/07/2017	0902_MW66_040717	Normal	NSW_0902_PFAS	<0.01	*0.18*	0.66	**0.84**	0.11	0.10	0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.09
MW066	13/11/2019	0902-MW066_191113	Normal	NSW_0902_PFASOMP	0.02	*0.35*	0.78	**1.13**	0.08	0.09	0.04	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.42
MW066	11/05/2020	0902_MW066_200511	Normal	NSW_0902_PFASOMP	0.02	*0.31*	0.73	**1.04**	0.07	0.10	0.03	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.31
MW066	10/11/2020	0902_MW066_201110	Normal	NSW_0902_PFASOMP	0.02	*0.27*	0.65	**0.92**	0.07	0.08	0.03	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.16
MW066	4/05/2021	0902_MW066_210504	Normal	NSW_0902_PFASOMP	0.02	*0.37*	0.85	**1.22**	0.13	0.12	0.04	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.60
MW066	22/11/2021	0902_MW066_211122	Normal	NSW_0902_PFASOMP	0.02	*0.25*	0.62	**0.87**	0.11	0.09	0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.16
MW066	24/05/2022	0902_MW066_220524	Normal	NSW_0902_PFASOMP	0.02	*0.41*	0.74	**1.15**	0.09	0.11	0.04	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.45
MW066	24/05/2022	0902_QC102_220524	Field_D	NSW_0902_PFASOMP	0.02	*0.49*	0.97	**1.46**	0.10	0.13	0.04	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.80
MW066	2/11/2022	0902_MW066_221102	Normal	NSW_0902_PFASOMP	0.02	*0.52*	0.77	**1.29**	0.10	0.10	0.04	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.61
MW067	5/07/2017	0902_MW67_050717	Normal	NSW_0902_PFAS	<0.01	*0.01*	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW067	14/11/2019	0902_MW067_191114	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW067	15/05/2020	0902_MW067_200515	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	0.04	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW067	15/05/2020	0902_QC110_200515	Field_D	NSW_0902_PFASOMP	<0.01	*0.01*	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW067	11/11/2020	0902_MW067_201111	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW067	5/05/2021	0902_MW067_210505	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW067	22/11/2021	0902_MW067_211122	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	0.03	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW067	26/05/2022	0902_MW067_220526	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW067	3/11/2022	0902_MW067_221103	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	0.04	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW068	5/07/2017	0902_MW68_050717	Normal	NSW_0902_PFAS	0.06	*0.32*	2.00	**2.32**	0.12	0.22	0.05	<0.02	<0.1	<0.02	0.13	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.93
MW068	14/11/2019	0902_MW068_191114	Normal	NSW_0902_PFASOMP	<0.01	*0.04*	0.24	**0.28**	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.33
MW068	12/05/2020	0902_MW068_200512	Normal	NSW_0902_PFASOMP	0.02	*0.08*	0.44	**0.52**	0.02	0.04	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.65
MW068	11/11/2020	0902_MW068_201111	Normal	NSW_0902_PFASOMP	0.02	*0.11*	0.63	**0.74**	0.04	0.07	0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.97
MW068	4/05/2021	0902_MW068_210504	Normal	NSW_0902_PFASOMP	0.07	*0.30*	1.85	**2.15**	0.19	0.19	0.07	<0.02	<0.1	0.05	0.23	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.97
MW068	23/11/2021	0902_MW068_211123	Normal	NSW_0902_PFASOMP	0.07	*0.33*	1.68	**2.01**	0.13	0.15	0.05	<0.02	<0.1	0.03	0.22	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.69
MW068	26/05/2022	0902_MW068_220526	Normal	NSW_0902_PFASOMP	0.21	*1.14*	3.87	**5.01**	0.29	0.45	0.15	<0.02	<0.1	0.07	0.48	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.73
MW068	26/05/2022	0902_QC206_220526	Interlab_D	NSW_0902_PFASOMP	0.20	*0.88*	3.6	**4.5**	0.34	0.42	0.15	<0.02	0.06	0.1	0.53	0.08	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	6.4
MW068	3/11/2022	0902_MW068_221103	Normal	NSW_0902_PFASOMP	0.25	*1.75*	6.64	**8.39**	0.41	0.66	0.23	<0.02	<0.1	0.14	0.71	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.9
MW069	5/07/2017	0902_MW69_050717	Normal	NSW_0902_PFAS	0.03	*0.65*	0.37	**1.02**	0.07	0.04	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.20
MW069	14/11/2019	0902_MW069_191114	Normal	NSW_0902_PFASOMP	0.03	*0.50*	0.32	**0.82**	0.05	0.04	<0.02	<0.02	<0.1	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.01
MW069	15/05/2020	0902_MW069_200515	Normal	NSW_0902_PFASOMP	0.05	*0.73*	0.42	**1.15**	0.08	0.05	0.02	<0.02	<0.1	0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.43
MW069	15/05/2020	0902_QC210_200515	Interlab_D	NSW_0902_PFASOMP	0.024	*0.32*	0.24	**0.56**	0.041	0.026	<0.01	<0.01	<0.05	<0.02	0.035	0.012	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW069	11/11/2020	0902_MW069_201111	Normal	NSW_0902_PFASOMP	0.02	*0.40*	0.23	**0.63**	0.04	0.03	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.76
MW069	5/05/2021	0902_MW069_210505	Normal	NSW_0902_PFASOMP	0.01	*0.20*	0.15	**0.35**	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
MW069	23/11/2021	0902_MW069_211123	Normal	NSW_0902_PFASOMP	0.03	*0.36*	0.28	**0.64**	0.08	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.83
MW069	27/05/2022	0902_MW069_220527	Normal	NSW_0902_PFASOMP	0.03	*0.52*	0.29	**0.81**	0.07	0.04	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.00
MW069	27/05/2022	0902_QC107_220527	Field_D	NSW_0902_PFASOMP	0.03	*0.63*	0.45	**1.08**	0.09	0.05	0.02	<0.02	<0.1	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.36
MW069	3/11/2022	0902_MW069_221103	Normal	NSW_0902_PFASOMP	0.03	*0.60*	0.38	**0.98**	0.08	0.05	<0.02	<0.02	<0.1	0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.22

Table T8 - Historical Groundwater Results (PFAS)

AECOM

																					PFAS																
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					**0.56**			**0.07**																												
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																														
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
MW070	5/07/2017	0902_MW70_050717	Normal	NSW_0902_PFAS	0.17	*1.22*	2.08	**3.3**	0.54	0.20	0.07	<0.02	<0.1	0.18	0.28	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.80
MW070	15/05/2020	0902_MW070_200515	Normal	NSW_0902_PFASOMP	0.20	*1.23*	1.48	**2.71**	0.36	0.16	0.07	<0.02	0.1	0.17	0.32	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.19
MW070	13/11/2020	0902_MW070_201113	Normal	NSW_0902_PFASOMP	0.05	*0.43*	0.48	**0.91**	0.12	0.04	0.02	<0.02	<0.1	0.06	0.12	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.35
MW070	4/05/2021	0902_MW070_210504	Normal	NSW_0902_PFASOMP	0.10	*0.88*	0.87	**1.75**	0.64	0.13	0.04	<0.02	0.1	0.18	0.31	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.30
MW070	22/11/2021	0902_MW070_211122	Normal	NSW_0902_PFASOMP	0.16	*0.86*	1.68	**2.54**	0.64	0.21	0.05	<0.02	0.1	0.20	0.48	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.49
MW070	26/05/2022	0902_MW070_220526	Normal	NSW_0902_PFASOMP	0.05	*1.15*	0.30	**1.45**	0.15	0.03	0.02	<0.02	<0.1	0.04	0.10	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.87
MW070	3/11/2022	0902_MW070_221103	Normal	NSW_0902_PFASOMP	0.06	*1.24*	0.53	**1.77**	0.13	0.07	0.03	<0.02	<0.1	0.12	0.17	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.41
MW071	4/07/2017	0902_MW71_040717	Normal	NSW_0902_PFAS	0.09	*1.72*	0.32	**2.04**	0.38	0.02	0.03	<0.02	<0.1	0.11	0.09	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.79
MW071	14/11/2019	0902_MW071_191114	Normal	NSW_0902_PFASOMP	0.08	*1.76*	0.59	**2.35**	0.16	0.07	0.04	<0.02	0.1	0.18	0.19	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.22
MW071	15/05/2020	0902_MW071_200515	Normal	NSW_0902_PFASOMP	0.10	*2.98*	0.65	**3.63**	0.36	0.09	0.06	<0.02	0.1	0.30	0.27	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.00
MW071	15/05/2020	0902_QC111_200515	Field_D	NSW_0902_PFASOMP	0.06	*1.93*	0.45	**2.38**	0.26	0.06	0.04	<0.02	<0.1	0.20	0.18	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.24
MW071	13/11/2020	0902_MW071_201113	Normal	NSW_0902_PFASOMP	0.05	*1.53*	0.36	**1.89**	0.13	0.04	0.03	<0.02	<0.1	0.13	0.14	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.45
MW071	4/05/2021	0902_MW071_210504	Normal	NSW_0902_PFASOMP	0.03	*1.00*	0.31	**1.31**	0.30	0.04	0.02	<0.02	<0.1	0.11	0.10	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.93
MW071	22/11/2021	0902_MW071_211122	Normal	NSW_0902_PFASOMP	0.05	*1.07*	0.34	**1.41**	0.15	0.03	0.03	<0.02	<0.1	0.09	0.11	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.91
MW071	26/05/2022	0902_MW071_220526	Normal	NSW_0902_PFASOMP	0.03	*0.75*	0.25	**1**	0.11	0.03	<0.02	<0.02	<0.1	0.05	0.09	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.34
MW071	3/11/2022	0902_MW071_221103	Normal	NSW_0902_PFASOMP	0.04	*1.08*	0.32	**1.4**	0.06	0.04	0.02	<0.02	<0.1	0.06	0.09	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.75
MW072	4/07/2017	0902_MW72_040717	Normal	NSW_0902_PFAS	**3.94**	*14.6*	80.0	**94.6**	21.5	11.4	4.64	<0.02	1.3	3.67	14.5	0.77	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	156
MW072	13/11/2019	0902-MW072_191113	Normal	NSW_0902_PFASOMP	**4.20**	*13.9*	92.6	**106**	19.2	15.0	6.24	<0.02	2.4	3.36	19.4	1.77	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	178
MW072	11/05/2020	0902_MW072_200511	Normal	NSW_0902_PFASOMP	**3.76**	*14.0*	106	**120**	16.6	23.8	3.26	<0.05	2.2	3.26	17.6	1.85	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	192
MW072	11/11/2020	0902_MW072_201111	Normal	NSW_0902_PFASOMP	**2.80**	*14.2*	70.3	**84.5**	15.5	13.4	3.02	<0.02	2.2	2.72	15.4	1.57	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	141
MW072	5/05/2021	0902_MW072_210505	Normal	NSW_0902_PFASOMP	**1.90**	*12.8*	51.5	**64.3**	11.0	8.58	2.12	<0.02	0.5	1.74	8.85	1.00	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	100
MW072	24/11/2021	0902_MW072_211124	Normal	NSW_0902_PFASOMP	**4.16**	*25.6*	104	**130**	21.6	15.4	4.15	<0.02	2.6	3.80	21.4	2.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	205
MW072	24/05/2022	0902_MW072_220524	Normal	NSW_0902_PFASOMP	**2.14**	*32.1*	36.4	**68.5**	6.20	5.43	2.36	<0.02	0.9	0.84	6.22	0.83	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	93.4
MW072	10/11/2022	0902_MW072_221110	Normal	NSW_0902_PFASOMP	**5.04**	*110*	103	**213**	13.0	13.2	6.69	<0.05	2.3	2.86	15.6	1.74	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	273
MW073	4/07/2017	0902_MW73_040717	Normal	NSW_0902_PFAS	**1.39**	*3.70*	32.0	**35.7**	3.21	4.20	0.85	<0.02	<0.1	0.93	4.89	0.57	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	51.7
MW073	28/11/2019	0902_MW073_191128	Normal	NSW_0902_PFASOMP	**2.38**	*4.70*	40.4	**45.1**	5.38	9.52	1.93	<0.02	0.3	2.42	12.3	0.88	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	80.2
MW073	11/05/2020	0902_MW073_200512	Normal	NSW_0902_PFASOMP	**2.43**	*5.35*	38.3	**43.6**	4.83	5.82	2.34	<0.02	1.4	2.44	11.5	0.91	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	75.3
MW073	11/05/2020	0902_QC101_200512	Field_D	NSW_0902_PFASOMP	**2.48**	*5.66*	47.4	**53.1**	5.81	9.64	2.70	<0.02	1.4	2.54	13.2	0.94	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	91.8
MW073	11/11/2020	0902_MW073_201111	Normal	NSW_0902_PFASOMP	**1.16**	*6.38*	19.3	**25.7**	3.10	2.90	1.60	<0.02	1.4	1.00	4.72	0.64	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	42.2
MW073	5/05/2021	0902_MW073_210505	Normal	NSW_0902_PFASOMP	**0.82**	*3.86*	21.4	**25.3**	2.53	3.23	0.76	<0.02	0.4	0.73	4.18	0.47	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	38.4
MW073	24/11/2021	0902_MW073_211124	Normal	NSW_0902_PFASOMP	**1.72**	*4.32*	38.5	**42.8**	6.10	6.09	1.95	<0.02	1.3	2.70	15.7	0.95	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	79.3
MW073	24/05/2022	0902_MW073_220524	Normal	NSW_0902_PFASOMP	**1.90**	*1.53*	26.1	**27.6**	0.22	1.13	3.68	<0.02	0.2	0.12	1.25	0.26	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	36.4
MW073	10/11/2022	0902_MW073_221110	Normal	NSW_0902_PFASOMP	**1.81**	*1.61*	22.7	**24.3**	0.27	0.93	2.56	<0.02	0.3	0.22	1.33	0.20	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	31.9
MW074	4/07/2017	0902_MW74_040717	Normal	NSW_0902_PFAS	**0.95**	*11.6*	38.9	**50.5**	4.85	6.41	0.72	<0.02	<0.1	0.97	5.61	0.84	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	70.8
MW074	11/05/2020	0902_MW074_200512	Normal	NSW_0902_PFASOMP	**1.52**	*11.0*	26.6	**37.6**	3.71	3.90	2.30	<0.02	1.4	1.18	6.32	0.77	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	58.7
MW074	12/05/2020	0902_QC201_200512	Interlab_D	NSW_0902_PFASOMP	**0.97**	*6.3*	21	**27.3**	2.4	2.5	1.4	<0.01	1.4	0.92	4.3	0.53	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
MW074	11/11/2020	0902_MW074_201111	Normal	NSW_0902_PFASOMP	**1.13**	*3.48*	23.6	**27.1**	3.56	3.99	1.12	<0.02	1.0	1.47	7.49	0.53	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	47.4
MW074	5/05/2021	0902_MW074_210505	Normal	NSW_0902_PFASOMP	**0.96**	*1.04*	24.0	**25**	1.90	2.62	1.58	<0.02	0.1	0.83	5.34	0.41	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	38.8
MW074	24/11/2021	0902_MW074_211124	Normal	NSW_0902_PFASOMP	**1.28**	*5.59*	27.1	**32.7**	5.20	4.69	1.36	<0.02	2.5	1.43	8.87	0.82	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	58.8
MW074	24/05/2022	0902_MW074_220524	Normal	NSW_0902_PFASOMP	**1.27**	*6.34*	28.7	**35**	4.92	5.74	1.57	<0.02	3.0	0.94	7.51	0.85	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	60.8

Table T8 - Historical Groundwater Results (PFAS)

						PFAS																														
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
MW074	10/11/2022	0902_MW074_221110	Normal	NSW_0902_PFASOMP		**1.44**	*6.32*	39.2	**45.5**	6.45	7.99	0.73	<0.02	4.5	1.89	10.2	1.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	79.7
MW074	10/11/2022	0902_QC111_221110	Field_D	NSW_0902_PFASOMP		**1.45**	*7.85*	34.8	**42.6**	6.09	6.66	1.06	<0.02	4.1	1.85	10.4	1.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	75.4
MW075	27/11/2017	0902_MW75_271117	Normal	NSW_0902_PFAS		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW075	15/11/2019	0902_MW075_191115	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW075	15/05/2020	0902_MW075_200515	Normal	NSW_0902_PFASOMP		0.04	*0.04*	4.26	**4.3**	4.16	3.37	<0.02	<0.02	0.4	0.99	5.00	0.54	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.8
MW075	10/11/2020	0902_MW075_201110	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW075	4/05/2021	0902_MW075_210504	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW075	25/11/2021	0902_MW075_211125	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW075	30/05/2022	0902_MW075_220530	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
MW075	8/11/2022	0902_MW075_221108	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
MW076	27/11/2017	0902_MW76_271117	Normal	NSW_0902_PFAS		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW076	15/11/2019	0902_MW076_191115	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW076	15/05/2020	0902_MW076_200515	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW076	9/11/2020	0902_MW076_201109	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW076	3/05/2021	0902_MW076_210503	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW076	25/11/2021	0902_MW076_211125	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW076	31/05/2022	0902_MW076_220531	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW076	10/11/2022	0902_MW076_221110	Normal	NSW_0902_PFASOMP		<0.01	<0.01	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW077	27/11/2017	0902_MW77_271117	Normal	NSW_0902_PFAS		<0.01	*0.04*	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW077	27/11/2017	0902_QC201_271117	Interlab_D	NSW_0902_PFAS		<0.01	*0.01*	0.02	0.03	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
MW077	15/11/2019	0902_MW077_191115	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW077	15/05/2020	0902_MW077_200515	Normal	NSW_0902_PFASOMP		<0.01	*0.08*	0.04	**0.12**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
MW077	9/11/2020	0902_MW077_201109	Normal	NSW_0902_PFASOMP		<0.01	*0.07*	0.04	**0.11**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW077	3/05/2021	0902_MW077_210503	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW077	25/11/2021	0902_MW077_211125	Normal	NSW_0902_PFASOMP		<0.01	*0.05*	0.04	**0.09**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09
MW077	31/05/2022	0902_MW077_220531	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW077	10/11/2022	0902_MW077_221110	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW078	27/11/2017	0902_MW78_271117	Normal	NSW_0902_PFAS		<0.01	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW078	27/11/2017	0902_QC101_271117	Field_D	NSW_0902_PFAS		<0.01	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.15	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
MW078	15/11/2019	0902_MW078_191115	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW078	13/05/2020	0902_MW078_200513	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW078	9/11/2020	0902_MW078_201109	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW078	3/05/2021	0902_MW078_210503	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW078	25/11/2021	0902_MW078_211125	Normal	NSW_0902_PFASOMP		<0.01	*0.01*	0.18	**0.19**	0.06	0.03	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.34
MW078	31/05/2022	0902_MW078_220531	Normal	NSW_0902_PFASOMP		<0.01	*0.01*	0.56	**0.57**	0.07	0.09	<0.02	<0.02	0.1	0.05	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.02
MW078	31/05/2022	0902_QC208_220531	Interlab_D	NSW_0902_PFASOMP		<0.01	*0.02*	0.41	**0.43**	0.06	0.06	<0.01	<0.02	0.09	0.04	0.13	0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.82
MW078	8/11/2022	0902_MW078_221108	Normal	NSW_0902_PFASOMP		0.01	*0.03*	0.67	**0.7**	0.08	0.10	<0.02	<0.02	0.1	0.06	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.21
MW078	8/11/2022	0902_QC212_221108	Interlab_D	NSW_0902_PFASOMP		<0.01	*0.03*	0.58	**0.61**	0.08	0.1	<0.01	<0.02	0.1	0.05	0.12	0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	1.1
MW079	17/11/2017	0902_MW79_171117	Normal	NSW_0902_PFAS		0.04	*0.03*	0.55	**0.58**	0.07	0.12	0.03	<0.02	<0.1	<0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.96
MW079	17/11/2017	0902_QC183_171117	Field_D	NSW_0902_PFAS		0.04	*0.04*	0.65	**0.69**	0.11	0.12	0.04	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.09

Table T8 - Historical Groundwater Results (PFAS)

AECOM

					PFAS																														
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW079	15/11/2019	0902_MW079_191115	Normal	NSW_0902_PFASOMP	0.02	*0.01*	0.83	**0.84**	0.13	0.12	<0.02	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.21
MW079	13/05/2020	0902_MW079_200513	Normal	NSW_0902_PFASOMP	0.02	*0.02*	1.07	**1.09**	0.24	0.14	0.03	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.68
MW079	9/11/2020	0902_MW079_201109	Normal	NSW_0902_PFASOMP	0.01	<0.01	0.72	**0.72**	0.12	0.12	<0.02	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.07
MW079	3/05/2021	0902_MW079_210503	Normal	NSW_0902_PFASOMP	0.02	<0.01	1.13	**1.13**	0.16	0.16	0.03	<0.02	<0.1	0.03	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.67
MW079	24/11/2021	0902_MW079_211124	Normal	NSW_0902_PFASOMP	0.02	*0.08*	0.82	**0.9**	0.14	0.11	0.02	<0.02	<0.1	0.02	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.34
MW079	31/05/2022	0902_MW079_220531	Normal	NSW_0902_PFASOMP	0.02	*0.52*	1.25	**1.77**	0.16	0.18	0.03	<0.02	<0.1	0.04	0.14	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.36
MW079	8/11/2022	0902_MW079_221108	Normal	NSW_0902_PFASOMP	0.06	*1.44*	1.64	**3.08**	0.16	0.18	0.04	<0.02	<0.1	0.06	0.22	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.83
MW080	17/11/2017	0902_MW80_171117	Normal	NSW_0902_PFAS	0.25	*2.51*	3.80	**6.31**	0.72	0.70	0.36	<0.02	<0.1	0.19	0.97	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.61
MW080	15/11/2019	0902_MW080_191115	Normal	NSW_0902_PFASOMP	0.10	*1.17*	2.73	**3.9**	0.43	0.42	0.13	<0.02	<0.1	0.08	0.44	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.55
MW080	13/05/2020	0902_MW080_200513	Normal	NSW_0902_PFASOMP	0.18	*2.28*	4.32	**6.6**	0.66	0.63	0.29	<0.02	<0.1	0.16	0.78	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.39
MW080	9/11/2020	0902_MW080_201109	Normal	NSW_0902_PFASOMP	0.20	*3.38*	4.97	**8.35**	0.74	0.91	0.33	<0.02	0.1	0.17	0.89	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.8
MW080	3/05/2021	0902_MW080_210503	Normal	NSW_0902_PFASOMP	0.10	*0.88*	2.21	**3.09**	0.39	0.37	0.12	<0.02	<0.1	0.09	0.47	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.69
MW080	24/11/2021	0902_MW080_211124	Normal	NSW_0902_PFASOMP	0.18	*2.92*	4.38	**7.3**	0.86	0.62	0.28	<0.02	<0.1	0.16	1.01	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.5
MW080	24/11/2021	0902_QC207_211124	Interlab_D	NSW_0902_PFASOMP	0.17	*2.3*	4.2	**6.5**	0.64	0.65	0.27	<0.02	0.08	0.2	0.79	0.11	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	9.4
MW080	16/06/2022	0902_MW080_220616	Normal	NSW_0902_PFASOMP	<0.01	*0.06*	0.53	**0.59**	0.04	0.05	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.68
MW080	8/11/2022	0902_MW080_221108	Normal	NSW_0902_PFASOMP	0.06	*0.78*	2.07	**2.85**	0.30	0.33	0.09	<0.02	<0.1	0.06	0.26	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.99
MW080	7/12/2022	0902_MW080_221207	Normal	NSW_0902_PFASMGMT	0.17	*2.0*	3.5	**5.5**	0.49	0.54	0.20	<0.02	0.07	0.1	0.62	0.08	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	7.8
MW081	9/11/2017	0902_MW81_091117	Normal	NSW_0902_PFAS	<0.01	*0.04*	0.03	0.07	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09
MW081	15/11/2019	0902_MW081_191115	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW081	15/11/2019	0902_QC107_191115	Field_D	NSW_0902_PFASOMP	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW081	15/05/2020	0902_MW081_200515	Normal	NSW_0902_PFASOMP	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12	<0.05
MW081	13/11/2020	0902_MW081_201113	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW081	5/05/2021	0902_MW081_210505	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW081	29/11/2021	0902_MW081_211129	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW081	30/05/2022	0902_MW081_220530	Normal	NSW_0902_PFASOMP	<0.01	*0.07*	0.03	**0.1**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10
MW081	3/11/2022	0902_MW081_221103	Normal	NSW_0902_PFASOMP	<0.01	*0.07*	0.04	**0.11**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
MW081	3/11/2022	0902_QC103_221103	Field_D	NSW_0902_PFASOMP	<0.01	*0.05*	0.03	**0.08**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
MW082	9/11/2017	0902_MW82_091117	Normal	NSW_0902_PFAS	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	15/11/2019	0902_MW082_191115	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	15/05/2020	0902_MW082_200515	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	9/11/2020	0902_MW082_201109	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	4/05/2021	0902_MW082_210504	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	4/05/2021	0902_QC101_210504	Field_D	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	25/11/2021	0902_MW082_211125	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	30/05/2022	0902_MW082_220530	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW082	21/11/2022	0902_MW082_221121	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW086	17/11/2017	0902_MW86_171117	Normal	NSW_0902_PFAS	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW086	15/11/2019	0902_MW086_191115	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW086	13/05/2020	0902_MW086_200513	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW086	9/11/2020	0902_MW086_201109	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01

Table T8 - Historical Groundwater Results (PFAS)

					PFAS																												
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW086	3/05/2021	0902_MW086_210503	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW086	22/11/2021	0902_MW086_211122	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW091	17/11/2017	0902_MW91_171117	Normal	NSW_0902_PFAS	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW091	13/05/2020	0902_MW091_200513	Normal	NSW_0902_PFASOMP	<0.01	*0.03*	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW091	9/11/2020	0902_MW091_201109	Normal	NSW_0902_PFASOMP	<0.01	*0.03*	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW091	3/05/2021	0902_MW091_210503	Normal	NSW_0902_PFASOMP	<0.01	*0.03*	0.04	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW091	25/11/2021	0902_MW091_211125	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
MW091	30/05/2022	0902_MW091_220530	Normal	NSW_0902_PFASOMP	<0.01	*0.03*	0.06	**0.09**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09
MW091	7/11/2022	0902_MW091_221107	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	0.05	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
MW092	17/11/2017	0902_MW92_171117	Normal	NSW_0902_PFAS	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW092	11/11/2019	0902_MW092_191111	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW092	13/05/2020	0902_MW092_200513	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW092	13/11/2020	0902_MW092_201113	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW092	6/05/2021	0902_MW092_210506	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW092	25/11/2021	0902_MW092_211125	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW092	31/05/2022	0902_MW092_220531	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW092	7/11/2022	0902_MW092_221107	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW097	11/09/2017	0902_QC200_171109	Interlab_D	NSW_0902_PFAS	<0.01	<0.01	0.02	0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
MW097	9/11/2017	0902_MW97_091117	Normal	NSW_0902_PFAS	<0.01	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW097	14/11/2019	0902_MW097_191114	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW097	14/05/2020	0902_MW097_200514	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW097	13/11/2020	0902_MW097_201113	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW097	5/05/2021	0902_MW097_210505	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW097	29/11/2021	0902_MW097_211129	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW097	30/05/2022	0902_MW097_220530	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW098	16/11/2017	0902_MW98_161117	Normal	NSW_0902_PFAS	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW098	14/11/2019	0902_MW098_191114	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW098	14/05/2020	0902_MW098_200514	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW098	12/11/2020	0902_MW098_201112	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW098	5/05/2021	0902_MW098_210505	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW098	29/11/2021	0902_MW098_211129	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW098	30/05/2022	0902_MW098_220530	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
MW106	11/06/2020	0902_MW106_200611	Normal	NSW_0902_PFASMGMT	0.03	*0.16*	0.64	**0.8**	0.13	0.15	0.03	<0.02	<0.1	0.03	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.35
MW106	9/11/2020	0902_MW106_201109	Normal	NSW_0902_PFASMGMT	0.02	*0.09*	0.47	**0.56**	0.09	0.08	0.02	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.93
MW106	24/11/2021	0902_MW106_211124	Normal	NSW_0902_PFASOMP	0.08	*0.97*	1.89	**2.86**	0.34	0.20	0.11	<0.02	<0.1	0.07	0.44	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.14
MW106	24/11/2021	0902_QC107_211124	Field_D	NSW_0902_PFASOMP	0.05	*0.53*	1.29	**1.82**	0.23	0.18	0.06	<0.02	<0.1	0.06	0.32	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.75
MW106	31/05/2022	0902_MW106_220531	Normal	NSW_0902_PFASOMP	<0.01	*0.07*	0.50	**0.57**	0.04	0.05	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.66
MW106	8/11/2022	0902_MW106_221108	Normal	NSW_0902_PFASOMP	0.08	*1.64*	2.20	**3.84**	0.27	0.32	0.13	<0.02	<0.1	0.07	0.34	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.10
MW106	8/11/2022	0902_QC213_221108	Interlab_D	NSW_0902_PFASOMP	0.07	*1.1*	1.9	**3**	0.27	0.30	0.12	<0.02	0.04	0.06	0.27	0.04	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	4.2
MW106	7/12/2022	0902_MW106_221207	Normal	NSW_0902_PFASMGMT	0.09	*0.97*	1.8	**2.8**	0.24	0.26	0.11	<0.02	0.03	0.06	0.29	0.04	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	3.9

Table T8 - Historical Groundwater Results (PFAS)

AECOM

																																		PFAS

Table T8 - Historical Groundwater Results (PFAS)

					PFAS																															
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Drinking Water					**0.56**			**0.07**																												
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																														
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
MW111	11/11/2022	0902_MW111_221111	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.09	**0.09**	0.04	0.03	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.22
MW112	11/06/2020	0902_MW112_200611	Normal	NSW_0902_PFASMGMT	<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
MW112	12/11/2020	0902_MW112_201112	Normal	NSW_0902_PFASMGMT	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW112	25/11/2021	0902_MW112_211125	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW112	26/05/2022	0902_MW112_220526	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW112	11/11/2022	0902_MW112_221111	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW113	11/06/2020	0902_MW113_200611	Normal	NSW_0902_PFASMGMT	<0.01	*0.05*	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
MW113	12/11/2020	0902_MW113_201112	Normal	NSW_0902_PFASMGMT	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
MW113	29/11/2021	0902_MW113_211129	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW113	26/05/2022	0902_MW113_220526	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW113	11/11/2022	0902_MW113_221111	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
MW114	11/06/2020	0902_MW114_200611	Normal	NSW_0902_PFASMGMT	<0.01	<0.01	0.06	0.06	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
MW114	11/06/2020	0902_QC100_200611	Field_D	NSW_0902_PFASMGMT	<0.01	<0.01	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
MW114	12/11/2020	0902_MW114_201112	Normal	NSW_0902_PFASMGMT	<0.01	<0.01	0.15	**0.15**	0.04	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.22
MW114	29/11/2021	0902_MW114_211129	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.14	**0.14**	0.03	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
MW114	29/11/2021	0902_QC213_211129	Interlab_D	NSW_0902_PFASOMP	<0.01	<0.01	0.14	**0.14**	0.03	0.02	<0.01	<0.02	<0.02	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.20
MW114	26/05/2022	0902_MW114_220526	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.15	**0.15**	0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
MW114	26/05/2022	0902_QC106_220526	Field_D	NSW_0902_PFASOMP	<0.01	<0.01	0.13	**0.13**	0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
MW114	11/11/2022	0902_MW114_221111	Normal	NSW_0902_PFASOMP	<0.01	<0.01	0.10	**0.1**	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10

Notes:

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
Bold	Denotes exceedance of adoped human health screening criteria
Italics	Denotes exceedance of adopted ecological screening criteria

Table T9 - Historical Surface Water Results (PFAS)

						PFAS																														
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water						**10**			**2**																											
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																													
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
SW001	3/07/2017	0902_SW001_030717	Normal	NSW_0902_PFAS		9.02	*10.3*	0.78	**11.1**	0.52	0.43	0.18	<0.02	4.8	7.62	50.6	3.93	9.00	9.37	1.19	1.22	<0.02	<0.05	0.13	712	25.6	0.20	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	847
SW001	3/07/2017	0902_QC107_030717	Field_D	NSW_0902_PFAS		**10.1**	*10.6*	1.17	**11.8**	0.87	0.71	0.21	0.23	3.2	8.90	53.5	2.31	7.49	7.79	1.14	1.50	0.02	<0.05	0.61	477	16.4	0.14	0.53	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	604
SW001	27/02/2018	0902_SW001_270218	Normal	NSW_0902_PFAS		6.28	*11.4*	2.44	**13.8**	0.30	0.28	0.27	<0.02	0.9	2.07	2.51	3.10	7.01	5.58	0.39	0.13	0.03	<0.05	<0.05	8.06	5.97	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	56.7
SW001	4/11/2019	0902_SW001_191104	Normal	NSW_0902_PFASOMP		8.32	*62.8*	3.99	**66.8**	0.71	0.51	0.48	1.23	1.9	3.08	3.81	3.34	15.1	47.0	14.1	4.05	0.23	0.10	<0.05	8.72	49.2	0.46	0.42	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	230
SW001	4/11/2019	0902_QC100_191104	Field_D	NSW_0902_PFASOMP		8.80	*77.9*	4.08	**82.0**	0.70	0.52	0.43	2.01	2.0	3.08	4.01	3.42	13.6	49.6	36.2	11.3	0.75	0.21	<0.05	8.88	49.5	1.56	0.92	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	279
SW001	13/11/2020	0902_SW001_201113	Normal	NSW_0902_PFASOMP		4.98	*14.6*	3.49	**18.1**	0.67	0.42	0.24	0.10	2.2	4.08	5.54	3.16	9.32	5.78	0.59	0.20	0.05	0.05	<0.05	7.36	8.20	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	71.0
SW001	13/11/2020	0902_QC108_201113	Field_D	NSW_0902_PFASOMP		5.08	*41.2*	3.48	**44.7**	0.68	0.46	0.31	0.49	2.3	3.78	5.00	3.17	9.36	13.4	6.65	4.85	1.22	0.82	<0.05	7.36	24.2	0.59	0.24	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	135
SW001	7/05/2021	0902_SW001_210507	Normal	NSW_0902_PFASOMP		0.85	*7.54*	2.73	**10.3**	0.40	0.34	0.18	0.14	0.5	1.16	1.53	0.54	0.45	0.46	0.19	0.08	<0.02	<0.05	<0.05	0.27	0.42	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.8
SW001	26/11/2021	0902_SW001_211126	Normal	NSW_0902_PFASOMP		0.23	*4.10*	0.90	**5.00**	0.27	0.12	0.05	0.04	0.3	0.43	0.62	0.13	0.10	0.09	0.04	0.02	<0.02	<0.05	<0.05	<0.05	0.10	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.54
SW001	26/11/2021	0902_QC208_211126	Interlab_D	NSW_0902_PFASOMP		0.23	*4.1*	0.88	**5.0**	0.21	0.12	0.06	<0.02	0.46	0.42	0.48	0.14	0.11	0.09	0.03	<0.05	<0.1	<0.5	<0.01	0.04	0.1	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	7.5
SW001	24/05/2022	0902_SW001_220524	Normal	NSW_0902_PFASOMP		1.57	*23.0*	9.28	**32.3**	1.67	1.65	0.48	0.13	1.0	1.96	3.78	1.67	0.68	0.70	0.28	0.06	<0.02	<0.05	<0.05	0.33	0.89	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	49.2
SW002	4/07/2017	0902_SW002_040717	Normal	NSW_0902_PFAS		5.28	*53.5*	30.4	**83.9**	4.08	3.62	2.55	<0.02	3.0	3.70	24.7	2.54	3.56	1.84	0.16	0.09	<0.02	<0.05	0.06	123	4.85	<0.05	0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	267
SW002	15/01/2018	0902_SW002_180115	Normal	NSW_0902_PFAS		2.59	*24.4*	6.18	**30.6**	1.28	0.81	0.48	0.03	0.6	1.20	3.13	1.39	1.70	0.77	0.07	<0.02	<0.02	<0.05	<0.05	4.22	1.12	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	50.0
SW002	4/11/2019	0902_SW002_191104	Normal	NSW_0902_PFASOMP		0.74	*10.9*	2.55	**13.4**	0.45	0.42	0.23	0.02	0.4	0.66	1.12	0.42	0.93	0.98	0.19	0.02	<0.02	<0.05	<0.05	0.72	1.51	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	22.3
SW002	14/05/2020	0902_SW002_200514	Normal	NSW_0902_PFASOMP		0.30	*13.7*	2.94	**16.6**	0.36	0.34	0.36	0.02	0.1	0.25	0.72	0.13	0.08	0.17	0.03	<0.02	<0.02	<0.05	<0.05	0.10	0.19	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.8
SW002	14/07/2020	0902_SW002_2007140704	Normal	NSW_0902_PFASMGMT		0.02	*0.47*	0.17	0.64	0.04	0.03	<0.02	<0.02	<0.1	0.03	0.10	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.98
SW002	14/07/2020	0902_SW002_2007140719	Normal	NSW_0902_PFASMGMT		0.04	*0.93*	0.38	1.31	0.08	0.07	0.03	<0.02	<0.1	0.06	0.17	0.03	<0.02	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.88
SW002	14/07/2020	0902_SW002_2007140734	Normal	NSW_0902_PFASMGMT		0.27	*4.60*	1.23	**5.83**	0.26	0.23	0.10	<0.02	0.1	0.28	0.63	0.18	0.38	0.70	0.19	0.05	<0.02	<0.05	<0.05	0.26	1.01	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.5
SW002	14/07/2020	0902_SW002_2007140749	Normal	NSW_0902_PFASMGMT		0.59	*5.19*	1.29	**6.48**	0.29	0.22	0.13	<0.02	0.1	0.46	0.88	0.42	0.80	1.16	0.29	0.08	<0.02	<0.05	<0.05	0.54	2.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.5
SW002	14/07/2020	0902_SW002_2007140804	Normal	NSW_0902_PFASMGMT		0.64	*4.66*	1.19	**5.85**	0.23	0.22	0.10	<0.02	0.2	0.52	0.96	0.48	0.69	1.07	0.20	0.07	<0.02	<0.05	<0.05	0.48	1.88	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	13.6
SW002	14/07/2020	0902_SW002_2007140834	Normal	NSW_0902_PFASMGMT		0.55	*3.93*	0.94	**4.87**	0.19	0.16	0.08	<0.02	0.2	0.41	0.77	0.39	0.52	0.77	0.19	0.08	<0.02	<0.05	<0.05	0.43	1.12	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.7
SW002	14/07/2020	0902_SW002_2007140904	Normal	NSW_0902_PFASMGMT		0.62	*4.58*	1.58	**6.16**	0.30	0.26	0.13	<0.02	0.2	0.48	0.96	0.45	0.54	0.71	0.12	0.04	<0.02	<0.05	<0.05	0.43	1.02	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.4
SW002	14/07/2020	0902_SW002_2007140934	Normal	NSW_0902_PFASMGMT		0.80	*13.0*	2.62	**15.6**	0.45	0.42	0.23	0.04	0.3	0.64	1.32	0.49	0.65	0.92	0.19	0.07	<0.02	<0.05	<0.05	0.48	1.43	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	24.1
SW002	14/07/2020	0902_SW002_2007141034	Normal	NSW_0902_PFASMGMT		0.82	*20.8*	3.65	**24.4**	0.66	0.62	0.30	0.04	0.4	0.74	1.62	0.50	0.62	1.01	0.21	0.07	<0.02	<0.05	<0.05	0.51	1.65	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.2
SW002	14/07/2020	0902_SW002_2007141134	Normal	NSW_0902_PFASMGMT		0.74	*16.8*	3.67	**20.5**	0.68	0.65	0.33	0.06	0.3	0.70	1.54	0.45	0.62	0.85	0.23	0.09	<0.02	<0.05	<0.05	0.42	1.52	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	29.7
SW002	14/07/2020	0902_QC105_200714	Field_D	NSW_0902_PFASMGMT		0.04	*0.89*	0.36	1.25	0.08	0.07	0.02	<0.02	<0.1	0.06	0.16	0.03	<0.02	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.80
SW002	14/07/2020	0902_QC106_200714	Field_D	NSW_0902_PFASMGMT		0.60	*3.98*	1.10	**5.08**	0.20	0.19	0.08	<0.02	0.2	0.45	0.80	0.41	0.52	0.84	0.19	0.08	<0.02	<0.05	<0.05	0.48	1.55	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	11.7
SW002	7/08/2020	0902_SW002_2008071145	Normal	NSW_0902_PFASMGMT		0.52	*10.0*	5.04	**15.0**	0.66	0.70	0.36	<0.02	0.2	0.40	1.32	0.29	0.05	0.04	0.02	<0.02	<0.02	<0.05	<0.05	<0.05	0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.7
SW002	7/08/2020	0902_SW002_2008071200	Normal	NSW_0902_PFASMGMT		0.53	*10.6*	4.72	**15.3**	0.63	0.71	0.35	<0.02	0.2	0.39	1.29	0.28	0.04	0.04	0.03	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.8
SW002	7/08/2020	0902_SW002_2008071215	Normal	NSW_0902_PFASMGMT		0.54	*10.4*	4.81	**15.2**	0.64	0.70	0.37	<0.02	0.2	0.40	1.28	0.27	0.05	0.04	0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.7
SW002	7/08/2020	0902_SW002_2008071230	Normal	NSW_0902_PFASMGMT		0.46	*8.40*	4.02	**12.4**	0.52	0.56	0.29	<0.02	0.2	0.34	1.06	0.23	0.04	0.03	0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	16.2
SW002	7/08/2020	0902_SW002_2008071300	Normal	NSW_0902_PFASMGMT		0.13	*3.23*	1.02	**4.25**	0.14	0.13	0.07	<0.02	<0.1	0.10	0.31	0.07	<0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.28
SW002	7/08/2020	0902_SW002_2008071330	Normal	NSW_0902_PFASMGMT		0.13	*2.60*	0.86	**3.46**	0.13	0.12	0.06	<0.02	<0.1	0.10	0.27	0.07	0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.44
SW002	7/08/2020	0902_SW002_2008071345	Normal	NSW_0902_PFASMGMT		0.08	*2.01*	0.64	**2.65**	0.10	0.08	0.04	<0.02	<0.1	0.06	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.32
SW002	7/08/2020	0902_SW002_2008071400	Normal	NSW_0902_PFASMGMT		0.06	*1.74*	0.50	**2.24**	0.08	0.07	0.04	<0.02	<0.1	0.04	0.17	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.80
SW002	7/08/2020	0902_SW002_2008071500	Normal	NSW_0902_PFASMGMT		0.44	*2.94*	0.85	**3.79**	0.16	0.14	0.06	<0.02	0.1	0.29	0.61	0.32	0.35	0.44	0.14	0.08	<0.02	<0.05	<0.05	0.32	0.57	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.81
SW002	7/08/2020	0902_SW002_2008071600	Normal	NSW_0902_PFASMGMT		0.43	*9.06*	2.03	**11.1**	0.35	0.35	0.16	0.02	0.2	0.34	0.90	0.28	0.28	0.40	0.12	0.05	<0.02	<0.05	<0.05	0.26	0.64	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	15.9
SW002	8/09/2020	0902_SW002_200908	Normal	NSW_0902_PFASMGMT		1.17	*44.4*	9.40	**53.8**	1.35	1.55	1.40	0.35	0.4	0.85	2.67	0.56	0.11	0.18	0.36	0.12	<0.02	<0.05	<0.05	0.23	0.23	<0.05	0.10	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	65.4
SW002	8/09/2020	0902_QC107_200908	Field_D	NSW_0902_PFASMGMT		1.14	*46.7*	10.8	**57.5**	1.46	1.76	1.86	0.41	0.4	0.90	2.83	0.60	0.12	0.16	0.30	0.11	<0.02	<0.05	<0.05	0.33	0.22	<0.05	0.09	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	70.2
SW002	28/10/2020	0902_SW002_2010281630	Normal	NSW_0902_PFASMGMT		0.99	*27.7*	15.4	**43.1**	2.67	2.86	1.24	0.02	0.7	1.16	4.78	0.38	0.10	0.09	0.02	<0.02	<0.02	<0.05	<0.05	0.19	0.14	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	58.5

Table T9 - Historical Surface Water Results (PFAS)

						PFAS																													
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
SW002	13/11/2020	0902_SW002_201113	Normal	NSW_0902_PFASOMP		0.36	*16.5*	5.92	**22.4**	0.66	0.69	0.40	<0.02	0.2	0.36	1.63	0.20	0.04	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	0.06	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	27.1
SW002	13/11/2020	0902_QC208_201113	Interlab_D	NSW_0902_PFASOMP		0.37	*11*	4.9	**0.99**	0.69	0.6	0.3	<0.01	0.24	0.36	1.4	0.19	0.034	0.033	0.016	<0.01	<0.02	<0.02	<0.01	0.051	0.048	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
SW002	29/01/2021	0902_SW002_2101290800	Normal	NSW_0902_PFASMGMT		0.11	*3.33*	1.12	**4.45**	0.18	0.15	0.08	<0.02	<0.1	0.10	0.39	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.65
SW002	29/01/2021	0902_SW002_2101290845	Normal	NSW_0902_PFASMGMT		0.12	*3.42*	1.14	**4.56**	0.18	0.14	0.09	<0.02	<0.1	0.10	0.41	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.78
SW002	29/01/2021	0902_SW002_2101290930	Normal	NSW_0902_PFASMGMT		0.12	*3.84*	1.25	**5.09**	0.19	0.15	0.10	<0.02	<0.1	0.11	0.44	0.08	<0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.41
SW002	29/01/2021	0902_SW002_2101291015	Normal	NSW_0902_PFASMGMT		0.10	*3.70*	1.27	**4.97**	0.20	0.16	0.10	<0.02	<0.1	0.10	0.43	0.08	<0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.28
SW002	29/01/2021	0902_SW002_2101291100	Normal	NSW_0902_PFASMGMT		0.13	*4.68*	1.43	**6.11**	0.22	0.17	0.10	<0.02	<0.1	0.12	0.47	0.08	<0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.13	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.55
SW002	29/01/2021	0902_SW002_2101291145	Normal	NSW_0902_PFASMGMT		0.23	*3.83*	1.22	**5.05**	0.18	0.14	0.09	<0.02	<0.1	0.18	0.59	0.16	0.10	0.05	<0.02	<0.02	<0.02	<0.05	<0.05	0.30	0.08	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.15
SW002	29/01/2021	0902_SW002_2101291230	Normal	NSW_0902_PFASMGMT		0.12	*2.38*	0.75	**3.13**	0.12	0.09	0.05	<0.02	<0.1	0.11	0.34	0.09	0.05	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.20	0.06	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.39
SW002	29/01/2021	0902_SW002_2101291315	Normal	NSW_0902_PFASMGMT		0.14	*2.52*	0.89	**3.41**	0.13	0.12	0.06	<0.02	<0.1	0.12	0.34	0.06	0.06	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.25	0.06	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.78
SW002	29/01/2021	0902_SW002_2101291400	Normal	NSW_0902_PFASMGMT		0.18	*3.39*	0.93	**4.32**	0.14	0.12	0.08	<0.02	<0.1	0.16	0.40	0.09	0.11	0.06	0.02	<0.02	<0.02	<0.05	<0.05	0.31	0.11	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.10
SW002	29/01/2021	0902_SW002_2101291445	Normal	NSW_0902_PFASMGMT		1.05	*8.04*	1.93	**9.97**	0.26	0.23	0.20	0.04	0.2	0.52	1.13	0.39	1.61	1.42	0.27	0.05	<0.02	<0.05	<0.05	1.09	2.58	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	21.0
SW002	29/01/2021	0902_SW002_2101291530	Normal	NSW_0902_PFASMGMT		0.44	*4.04*	0.94	**4.98**	0.13	0.12	0.10	0.02	<0.1	0.22	0.49	0.18	0.75	0.82	0.20	0.04	<0.02	<0.05	<0.05	0.49	1.56	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.5
SW002	29/01/2021	0902_QC109_210129	Field_D	NSW_0902_PFASMGMT		0.11	*3.29*	1.11	**4.40**	0.17	0.14	0.09	<0.02	<0.1	0.10	0.39	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.57
SW002	29/01/2021	0902_QC110_210129	Field_D	NSW_0902_PFASMGMT		0.10	*3.69*	1.27	**4.96**	0.19	0.16	0.10	<0.02	<0.1	0.10	0.44	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.25
SW002	29/01/2021	0902_QC208_210129	Interlab_D	NSW_0902_PFASMGMT		0.10	*3.5*	1.2	**4.7**	0.21	0.19	0.11	<0.02	0.09	0.1	0.38	0.08	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.13	0.03	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	6.1
SW002	29/01/2021	0902_QC209_210129	Interlab_D	NSW_0902_PFASMGMT		0.11	*4.0*	1.3	**5.2**	0.21	0.20	0.11	<0.02	0.1	0.1	0.39	0.09	<0.01	0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.13	0.03	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	6.8
SW002	5/05/2021	0902_SW002_210505	Normal	NSW_0902_PFASOMP		0.67	*6.88*	3.16	**10.0**	1.22	1.10	0.51	<0.02	0.4	0.74	2.17	0.47	0.20	0.11	0.04	<0.02	<0.02	<0.05	<0.05	0.26	0.17	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	18.1
SW002	9/11/2021	0902_SW002_211109	Normal	NSW_0902_PFASMGMT		0.60	*16.4*	7.25	**23.6**	1.46	1.17	0.53	0.03	0.4	0.65	2.39	0.34	0.11	0.07	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	0.10	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	31.5
SW002	26/11/2021	0902_SW002_2111260820	Normal	NSW_0902_PFASMGMT		0.13	*6.06*	1.23	**7.29**	0.27	0.16	0.09	0.02	0.2	0.21	0.53	0.07	0.05	0.04	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.06
SW002	26/11/2021	0902_SW002_2111260835	Normal	NSW_0902_PFASMGMT		0.11	*4.34*	0.91	**5.25**	0.25	0.15	0.07	<0.02	0.2	0.19	0.40	0.06	0.04	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.75
SW002	26/11/2021	0902_SW002_2111260850	Normal	NSW_0902_PFASMGMT		0.10	*4.40*	0.89	**5.29**	0.25	0.14	0.07	<0.02	0.1	0.19	0.39	0.06	0.04	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.66
SW002	26/11/2021	0902_SW002_2111260920	Normal	NSW_0902_PFASMGMT		0.13	*5.06*	1.15	**6.21**	0.29	0.19	0.08	0.02	0.2	0.24	0.50	0.07	0.05	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.01
SW002	26/11/2021	0902_SW002_2111260950	Normal	NSW_0902_PFASMGMT		0.10	*4.18*	0.82	**5.00**	0.23	0.13	0.07	<0.02	0.1	0.18	0.37	0.06	0.04	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.30
SW002	26/11/2021	0902_SW002_2111261020	Normal	NSW_0902_PFASMGMT		0.13	*5.54*	1.16	**6.70**	0.30	0.19	0.10	0.02	0.2	0.21	0.50	0.07	0.04	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.49
SW002	26/11/2021	0902_SW002_2111261050	Normal	NSW_0902_PFASMGMT		0.12	*4.39*	1.01	**5.40**	0.26	0.16	0.08	<0.02	0.1	0.18	0.43	0.06	0.04	0.04	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.87
SW002	26/11/2021	0902_SW002_2111261120	Normal	NSW_0902_PFASMGMT		0.13	*5.78*	1.17	**6.95**	0.29	0.18	0.10	0.02	0.2	0.19	0.48	0.07	0.05	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.69
SW002	26/11/2021	0902_SW002_2111261220	Normal	NSW_0902_PFASMGMT		0.14	*6.00*	1.28	**7.28**	0.32	0.19	0.11	0.02	0.1	0.20	0.57	0.07	0.05	0.04	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.09
SW002	26/11/2021	0902_SW002_2111261320	Normal	NSW_0902_PFASMGMT		0.15	*5.94*	1.45	**7.39**	0.35	0.21	0.11	0.02	0.2	0.22	0.58	0.08	0.05	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.39
SW002	26/11/2021	0902_QC100_211126	Field_D	NSW_0902_PFASMGMT		0.11	*4.87*	0.89	**5.76**	0.24	0.14	0.08	0.02	0.1	0.18	0.40	0.05	0.04	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.15
SW002	26/11/2021	0902_QC200_211126	Interlab_D	NSW_0902_PFASMGMT		0.11	*4.3*	1.2	**5.5**	0.18	0.15	0.08	<0.02	0.2	0.2	0.34	0.07	0.05	0.03	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	6.8
SW002	29/11/2021	0902_SW002_211129	Normal	NSW_0902_PFASOMP		0.95	*41.6*	15.0	**56.6**	1.86	1.89	1.00	0.02	0.4	0.86	3.58	0.49	0.10	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	67.8
SW002	18/01/2022	0902_SW002_220118	Normal	NSW_0902_PFASMGMT		1.37	*46.6*	17.4	**64.0**	2.52	3.11	1.73	0.02	0.6	1.04	5.55	0.70	0.09	0.04	0.02	<0.02	<0.02	<0.05	<0.05	0.10	0.08	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	81.0
SW002	21/02/2022	0902_SW002_220221	Normal	NSW_0902_PFASMGMT		1.25	*21.2*	8.20	**29.4**	1.44	1.50	0.83	0.03	0.5	1.18	3.40	1.12	0.61	0.42	0.09	0.05	<0.02	<0.05	<0.05	0.79	1.41	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	44.0
SW002	21/02/2022	0902_SW002_2202211800	Normal	NSW_0902_PFASMGMT		1.30	*25.6*	10.7	**36.3**	1.54	1.36	0.50	0.05	0.6	1.09	3.87	0.84	0.61	0.63	0.16	0.05	<0.02	<0.05	<0.05	0.58	1.10	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	50.6
SW002	21/02/2022	0902_SW002_2202212000	Normal	NSW_0902_PFASMGMT		0.30	*8.05*	2.91	**11.0**	0.51	0.37	0.16	<0.02	0.1	0.26	1.07	0.20	0.08	0.11	0.05	0.02	<0.02	<0.05	<0.05	0.12	0.21	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.5
SW002	22/02/2022	0902_SW002_2202221000	Normal	NSW_0902_PFASMGMT		1.19	*25.0*	9.92	**34.9**	1.72	1.54	0.68	0.04	0.6	1.02	3.82	0.76	0.47	0.50	0.14	0.05	<0.02	<0.05	<0.05	0.44	1.07	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	49.0
SW002	22/02/2022	0902_SW002_2202221200	Normal	NSW_0902_PFASMGMT		0.28	*8.23*	3.15	**11.4**	0.53	0.39	0.14	<0.02	0.1	0.24	1.03	0.18	0.07	0.09	0.05	0.02	<0.02	<0.05	<0.05	0.11	0.20	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	14.8
SW002	22/02/2022	0902_SW002_2202221400	Normal	NSW_0902_PFASMGMT		0.27	*10.7*	2.53	**13.2**	0.42	0.30	0.17	0.04	0.2	0.29	0.84	0.16	0.17	0.22	0.09	0.03	<0.02	<0.05	<0.05	0.10	0.50	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.0
SW002	22/02/2022	0902_SW002_2202221800	Normal	NSW_0902_PFASMGMT		0.66	*15.0*	7.81	**22.8**	1.72	1.41	0.37	0.02	0.4	0.61	2.88	0.40	0.14	0.14	0.06	0.02	<0.02	<0.05	<0.05	0.15	0.28	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	32.1

Table T9 - Historical Surface Water Results (PFAS)

AECOM

						PFAS																													
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
SW002	22/02/2022	0902_SW002_2202222200	Normal	NSW_0902_PFASMGMT		0.62	*16.2*	8.62	**24.8**	1.69	1.44	0.53	0.03	0.4	0.62	2.96	0.41	0.14	0.15	0.07	0.03	<0.02	<0.05	<0.05	0.16	0.30	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.4
SW002	23/02/2022	0902_SW002_2202230200	Normal	NSW_0902_PFASMGMT		0.66	*16.2*	8.80	**25.0**	1.75	1.49	0.44	0.02	0.4	0.64	3.09	0.43	0.15	0.14	0.06	0.02	<0.02	<0.05	<0.05	0.17	0.31	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.8
SW002	23/02/2022	0902_SW002_2202231000	Normal	NSW_0902_PFASMGMT		1.10	*26.7*	10.7	**37.4**	2.27	1.84	0.81	0.10	0.7	1.11	3.68	0.72	0.54	0.66	0.26	0.12	0.02	<0.05	<0.05	0.35	1.68	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	53.4
SW002	23/02/2022	0902_SW002_2202231400	Normal	NSW_0902_PFASMGMT		1.13	*30.8*	11.9	**42.7**	2.44	1.99	0.82	0.09	0.7	1.18	4.02	0.75	0.56	0.68	0.26	0.11	0.02	<0.05	<0.05	0.33	1.71	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	59.5
SW002	27/05/2022	0902_SW002_220527	Normal	NSW_0902_PFASOMP		2.98	*66.1*	40.5	**107**	4.80	5.75	2.96	0.02	1.4	<0.02	9.94	2.13	0.18	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.19	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	137
SW002	8/11/2022	0902_SW002_221108	Normal	NSW_0902_PFASOMP		1.07	*26.8*	16.3	**43.1**	2.02	2.42	1.26	<0.02	0.5	0.77	3.23	0.62	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	55.1
SW003	4/07/2017	0902_SW003_040717	Normal	NSW_0902_PFAS		3.34	*52.7*	23.4	**76.1**	3.95	3.44	1.70	<0.02	2.4	2.63	15.1	2.27	0.98	0.57	0.04	<0.02	<0.02	<0.05	<0.05	43.4	1.08	<0.05	0.05	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	157
SW003	15/01/2018	0902_SW003_180115	Normal	NSW_0902_PFAS		2.10	*22.2*	6.10	**28.3**	0.87	0.71	0.46	0.05	0.5	1.82	3.17	1.53	1.20	0.59	0.06	<0.02	<0.02	<0.05	<0.05	3.45	0.64	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	45.5
SW003	15/01/2018	0902_QC212_180115	Interlab_D	NSW_0902_PFAS		1.7	*14*	4.7	**1.21**	0.73	0.68	0.48	<0.02	0.60	1.5	2.6	1.4	0.97	0.30	0.02	<0.05	<0.1	<0.5	<0.01	2.9	0.44	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
SW003	27/02/2018	0902_SW003_270218	Normal	NSW_0902_PFAS		2.22	*37.2*	16.2	**53.4**	3.47	2.70	1.33	<0.02	0.7	2.26	4.57	1.60	1.02	0.45	0.04	<0.02	<0.02	<0.05	<0.05	2.21	0.72	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	76.7
SW003	27/02/2018	0902_QC120_270218	Field_D	NSW_0902_PFAS		1.98	*35.0*	17.1	**52.1**	3.16	2.43	1.28	<0.02	0.8	2.08	4.08	1.37	0.84	0.41	0.03	<0.02	<0.02	<0.05	<0.05	2.31	0.65	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	73.5
SW003	11/11/2019	0902_SW003_191111	Normal	NSW_0902_PFASOMP		0.77	*15.8*	8.37	**24.2**	1.21	0.94	0.50	<0.02	0.4	0.82	2.24	0.37	0.33	0.26	0.05	<0.02	<0.02	<0.05	<0.05	0.44	0.24	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	32.7
SW003	14/05/2020	0902_SW003_200514	Normal	NSW_0902_PFASOMP		0.65	*21.2*	6.56	**27.8**	0.87	0.90	0.68	0.05	0.2	0.50	1.68	0.26	0.26	0.39	0.05	0.02	<0.02	<0.05	<0.05	0.24	0.34	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	34.9
SW003	13/11/2020	0902_SW003_201113	Normal	NSW_0902_PFASOMP		0.38	*15.7*	5.85	**21.6**	0.66	0.71	0.41	0.05	0.2	0.35	1.50	0.17	0.06	0.06	0.04	0.03	<0.02	<0.05	<0.05	0.06	0.09	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	26.3
SW003	5/05/2021	0902_SW003_210505	Normal	NSW_0902_PFASOMP		0.58	*6.41*	2.82	**9.23**	1.63	0.86	0.43	0.03	0.4	0.70	1.87	0.38	0.34	0.18	0.05	<0.02	<0.02	<0.05	<0.05	0.33	0.14	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	17.2
SW003	29/11/2021	0902_SW003_211129	Normal	NSW_0902_PFASOMP		0.84	*33.6*	13.5	**47.1**	1.63	1.71	0.89	0.03	0.4	0.80	3.18	0.45	0.10	0.04	0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	57.2
SW003	29/11/2021	0902_QC211_211129	Interlab_D	NSW_0902_PFASOMP		1.0	*29*	12	**41**	1.6	1.5	0.83	<0.02	0.67	0.93	3.6	0.58	0.12	0.04	<0.02	<0.05	<0.1	<0.5	<0.01	0.07	0.04	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	52
SW003	30/05/2022	0902_SW003_220530	Normal	NSW_0902_PFASOMP		3.49	*74.0*	54.9	**129**	5.86	5.64	3.20	0.07	1.4	3.28	12.4	2.04	0.23	0.09	0.05	0.03	<0.02	<0.05	<0.05	0.25	0.11	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	167
SW003	30/05/2022	0902_QC109_220530	Field_D	NSW_0902_PFASOMP		2.69	*60.6*	36.7	**97.3**	4.47	5.19	2.47	0.09	1.3	2.19	9.33	2.11	0.20	0.08	0.04	<0.02	<0.02	<0.05	<0.05	0.20	0.12	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	128
SW003	8/11/2022	0902_SW003_221108	Normal	NSW_0902_PFASOMP		1.25	*28.6*	17.6	**46.2**	2.25	2.77	1.57	0.03	0.5	0.91	3.83	0.72	0.10	0.06	0.03	<0.02	<0.02	<0.05	<0.05	0.10	0.08	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	60.4
SW005	4/07/2017	0902_SW005_040717	Normal	NSW_0902_PFAS		<0.01	*0.08*	0.04	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
SW005	15/01/2018	0902_SW005_180115	Normal	NSW_0902_PFAS		<0.01	*0.20*	0.07	0.27	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27
SW005	8/11/2019	0902_SW005_191108	Normal	NSW_0902_PFASOMP		<0.01	*0.11*	0.02	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
SW005	14/05/2020	0902_SW005_200514	Normal	NSW_0902_PFASOMP		<0.01	*0.08*	0.07	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15
SW005	14/05/2020	0902_QC106_200514	Field_D	NSW_0902_PFASOMP		<0.01	*0.11*	0.07	0.18	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
SW005	12/11/2020	0902_SW005_201112	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
SW005	12/11/2020	0902_QC104_201112	Field_D	NSW_0902_PFASOMP		<0.01	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
SW005	6/05/2021	0902_SW005_210506	Normal	NSW_0902_PFASOMP		<0.01	*0.05*	0.08	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
SW005	25/11/2021	0902_SW005_211125	Normal	NSW_0902_PFASOMP		<0.01	*0.16*	0.10	0.26	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29
SW005	26/05/2022	0902_SW005_220526	Normal	NSW_0902_PFASOMP		0.01	*0.19*	0.20	0.39	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
SW005	11/11/2022	0902_SW005_221111	Normal	NSW_0902_PFASOMP		<0.01	*0.19*	0.08	0.27	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27
SW007	4/07/2017	0902_SW007_040717	Normal	NSW_0902_PFAS		0.01	*0.12*	0.11	0.23	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29
SW007	15/01/2018	0902_SW007_180115	Normal	NSW_0902_PFAS		<0.01	*0.10*	0.08	0.18	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
SW007	8/11/2019	0902_SW007_191108	Normal	NSW_0902_PFASOMP		<0.01	*0.12*	0.14	0.26	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.32
SW007	14/05/2020	0902_SW007_200514	Normal	NSW_0902_PFASOMP		<0.01	*0.05*	0.09	0.14	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
SW007	14/05/2020	0902_QC206_200514	Interlab_D	NSW_0902_PFASOMP		<0.01	*0.038*	0.064	#####	0.017	0.012	<0.01	<0.01	<0.05	<0.02	0.014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
SW007	12/11/2020	0902_SW007_201112	Normal	NSW_0902_PFASOMP		<0.01	*0.10*	0.06	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16
SW007	12/11/2020	0902_QC204_201112	Interlab_D	NSW_0902_PFASOMP		<0.01	*0.062*	0.042	#####	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
SW007	6/05/2021	0902_SW007_210506	Normal	NSW_0902_PFASOMP		<0.01	*0.05*	0.07	0.12	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16
SW007	29/11/2021	0902_SW007_211129	Normal	NSW_0902_PFASOMP		<0.01	*0.07*	0.08	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18

Table T9 - Historical Surface Water Results (PFAS)

AECOM

						PFAS																													
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
SW007	26/05/2022	0902_SW007_220526	Normal	NSW_0902_PFASOMP	<0.01	*0.10*	0.22	0.32	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43
SW007	26/05/2022	0902_QC105_220526	Field_D	NSW_0902_PFASOMP	0.01	*0.09*	0.22	0.31	0.03	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43
SW007	11/11/2022	0902_SW007_221111	Normal	NSW_0902_PFASOMP	<0.01	*0.14*	0.15	0.29	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.29
SW008	3/07/2017	0902_SW008_030717	Normal	NSW_0902_PFAS	0.02	*0.24*	0.13	0.37	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.44
SW008	15/01/2018	0902_SW008_180115	Normal	NSW_0902_PFAS	0.02	*0.34*	0.07	0.41	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.46
SW008	27/02/2018	0902_SW008_270218	Normal	NSW_0902_PFAS	0.01	*0.67*	0.10	0.77	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.82
SW008	8/11/2019	0902_SW008_191108	Normal	NSW_0902_PFASOMP	0.05	*1.01*	0.35	1.36	0.04	0.04	0.03	<0.02	<0.1	0.06	0.14	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	1.84
SW008	13/05/2020	0902_SW008_200513	Normal	NSW_0902_PFASOMP	0.013	*0.072*	0.1	######	0.022	0.017	<0.01	<0.01	<0.05	<0.02	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	<0.05	-
SW008	13/05/2020	0902_QC208_200513	Interlab_D	NSW_0902_PFASOMP	0.01	*0.12*	0.14	0.26	0.06	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.35
SW008	12/11/2020	0902_SW008_201112	Normal	NSW_0902_PFASOMP	0.02	*0.20*	0.08	0.28	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.30
SW008	6/05/2021	0902_SW008_210506	Normal	NSW_0902_PFASOMP	0.02	*0.19*	0.35	0.54	0.07	0.06	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.75
SW008	29/11/2021	0902_SW008_211129	Normal	NSW_0902_PFASOMP	<0.01	*0.08*	0.05	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
SW008	29/11/2021	0902_QC113_211129	Field_D	NSW_0902_PFASOMP	<0.01	*0.11*	0.05	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.18
SW008	26/05/2022	0902_SW008_220526	Normal	NSW_0902_PFASOMP	<0.01	*0.09*	0.24	0.33	0.04	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.41
SW008	11/11/2022	0902_SW008_221111	Normal	NSW_0902_PFASOMP	0.01	*0.20*	0.16	0.36	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.44
SW008	11/11/2022	0902_QC113_221111	Field_D	NSW_0902_PFASOMP	0.02	*0.23*	0.16	0.39	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.44
SW009	3/07/2017	0902_SW009_030717	Normal	NSW_0902_PFAS	0.54	*16.3*	4.98	**21.3**	0.76	0.76	0.42	<0.02	<0.1	0.22	0.97	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.28	0.06	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	25.6
SW009	15/01/2018	0902_SW009_180115	Normal	NSW_0902_PFAS	0.06	*1.37*	0.45	1.82	0.06	0.05	0.03	<0.02	<0.1	0.06	0.15	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	2.42
SW009	15/01/2018	0902_QC113_180115	Field_D	NSW_0902_PFAS	0.06	*1.38*	0.44	1.82	0.05	0.05	0.04	<0.02	<0.1	0.05	0.13	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.15	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	2.38
SW009	2/02/2018	0902_SW09_050218	Normal	NSW_0902_PFAS	0.06	*1.10*	0.31	1.41	0.04	0.03	0.02	<0.02	<0.1	<0.02	0.13	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	1.83
SW009	2/02/2018	0902_SW09_050218_a	Normal	NSW_0902_PFAS	0.13	*2.91*	0.67	**3.58**	0.07	0.06	0.05	<0.02	<0.1	0.08	0.26	0.07	0.04	0.04	<0.02	<0.02	<0.02	<0.05	<0.05	0.23	0.07	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	4.68
SW009	27/02/2018	0902_SW009_270218	Normal	NSW_0902_PFAS	0.05	*2.91*	0.49	**3.40**	0.07	0.05	0.05	<0.02	<0.1	0.03	0.11	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	3.85
SW009	4/11/2019	0902_SW009_191104	Normal	NSW_0902_PFASOMP	0.05	*1.06*	0.35	1.41	0.04	0.05	0.03	<0.02	<0.1	0.06	0.13	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	1.91
SW009	14/05/2020	0902_SW009_200514	Normal	NSW_0902_PFASOMP	0.02	*0.53*	0.25	0.78	0.04	0.02	<0.02	0.02	<0.1	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	0.98
SW009	14/05/2020	0902_QC109_200514	Field_D	NSW_0902_PFASOMP	0.04	*0.81*	0.43	1.24	0.06	0.04	0.03	0.04	<0.1	0.04	0.11	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	1.62
SW009	11/06/2020	0902_SW009_200611	Normal	NSW_0902_PFASMGMT	0.12	*2.46*	1.12	**3.58**	0.14	0.21	0.08	<0.02	<0.1	0.12	0.46	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.51	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	5.29
SW009	11/06/2020	0902_QC101_200611	Field_D	NSW_0902_PFASMGMT	0.13	*2.54*	1.20	**3.74**	0.13	0.22	0.09	<0.02	<0.1	0.13	0.50	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.54	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	5.56
SW009	14/07/2020	0902_SW009_2007140650	Normal	NSW_0902_PFASMGMT	0.08	*1.99*	0.61	**2.60**	0.07	0.07	0.04	<0.02	<0.1	0.08	0.19	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.17	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	3.33
SW009	14/07/2020	0902_SW009_2007140715	Normal	NSW_0902_PFASMGMT	0.08	*2.55*	0.66	**3.21**	0.07	0.07	0.05	<0.02	<0.1	0.07	0.18	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.18	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	3.95
SW009	14/07/2020	0902_SW009_2007140730	Normal	NSW_0902_PFASMGMT	0.08	*2.20*	0.67	**2.87**	0.07	0.08	0.05	<0.02	<0.1	0.07	0.18	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	3.59
SW009	14/07/2020	0902_SW009_2007140745	Normal	NSW_0902_PFASMGMT	0.07	*2.43*	0.60	**3.03**	0.06	0.07	0.04	0.02	<0.1	0.06	0.16	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	3.66
SW009	14/07/2020	0902_SW009_2007140800	Normal	NSW_0902_PFASMGMT	0.03	*0.96*	0.29	1.25	0.04	0.03	<0.02	<0.02	<0.1	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	1.45
SW009	14/07/2020	0902_SW009_2007140815	Normal	NSW_0902_PFASMGMT	0.03	*0.74*	0.25	0.99	0.04	0.02	<0.02	<0.02	<0.1	0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	1.16
SW009	14/07/2020	0902_SW009_2007140845	Normal	NSW_0902_PFASMGMT	0.03	*0.73*	0.26	0.99	0.04	0.02	<0.02	<0.02	<0.1	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	1.18
SW009	14/07/2020	0902_SW009_2007140915	Normal	NSW_0902_PFASMGMT	0.02	*0.69*	0.34	1.03	0.07	0.05	<0.02	<0.02	<0.1	0.04	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	1.33
SW009	14/07/2020	0902_SW009_2007140945	Normal	NSW_0902_PFASMGMT	0.02	*0.67*	0.34	1.01	0.07	0.05	<0.02	<0.02	<0.1	0.04	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	1.32
SW009	14/07/2020	0902_SW009_2007141045	Normal	NSW_0902_PFASMGMT	0.03	*1.14*	0.44	1.58	0.06	0.06	0.03	<0.02	<0.1	0.05	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	2.06
SW009	14/07/2020	0902_SW009_2007141145	Normal	NSW_0902_PFASMGMT	0.04	*1.54*	0.45	1.99	0.06	0.05	0.03	<0.02	<0.1	0.05	0.15	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.05	2.51
SW009	14/07/2020	0902_QC204_200714	Interlab_D	NSW_0902_PFASMGMT	0.07	*2.3*	0.79	**3.1**	0.07	0.08	0.05	<0.02	0.08	0.08	0.19	0.04	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.23	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	4.0
SW009	14/07/2020	0902_QC205_200714	Interlab_D	NSW_0902_PFASMGMT	0.03	*0.95*	0.31	1.3	0.03	0.03	0.02	<0.02	0.03	0.03	0.07	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.04	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	1.5

Table T9 - Historical Surface Water Results (PFAS)

						PFAS																														
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water						**10**			**2**																											
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																													
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
SW009	7/08/2020	0902_SW009_2008071245	Normal	NSW_0902_PFASMGMT		0.27	*4.74*	2.53	**7.27**	0.32	0.34	0.15	<0.02	0.1	0.21	0.73	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.58
SW009	7/08/2020	0902_SW009_2008071300	Normal	NSW_0902_PFASMGMT		0.26	*5.28*	2.40	**7.68**	0.33	0.31	0.14	<0.02	0.1	0.21	0.72	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.94
SW009	7/08/2020	0902_SW009_2008071315	Normal	NSW_0902_PFASMGMT		0.26	*5.73*	2.48	**8.21**	0.34	0.33	0.15	<0.02	0.1	0.20	0.74	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.5
SW009	7/08/2020	0902_SW009_2008071330	Normal	NSW_0902_PFASMGMT		0.28	*4.70*	2.65	**7.35**	0.34	0.35	0.15	<0.02	0.1	0.21	0.78	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.78
SW009	7/08/2020	0902_SW009_2008071345	Normal	NSW_0902_PFASMGMT		0.29	*5.76*	2.60	**8.36**	0.36	0.35	0.15	<0.02	0.1	0.23	0.79	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.8
SW009	7/08/2020	0902_SW009_2008071415	Normal	NSW_0902_PFASMGMT		0.28	*7.92*	2.53	**10.4**	0.33	0.34	0.15	<0.02	0.1	0.21	0.77	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.8
SW009	7/08/2020	0902_SW009_2008071445	Normal	NSW_0902_PFASMGMT		0.20	*4.99*	1.82	**6.81**	0.23	0.23	0.11	<0.02	<0.1	0.15	0.54	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.42
SW009	7/08/2020	0902_SW009_2008071515	Normal	NSW_0902_PFASMGMT		0.15	*4.64*	1.30	**5.94**	0.17	0.16	0.08	0.02	<0.1	0.10	0.38	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.06
SW009	7/08/2020	0902_SW009_2008071615	Normal	NSW_0902_PFASMGMT		0.15	*4.92*	1.34	**6.26**	0.18	0.17	0.08	0.03	<0.1	0.11	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.43
SW009	7/08/2020	0902_SW009_2008071715	Normal	NSW_0902_PFASMGMT		0.20	*5.37*	1.95	**7.32**	0.26	0.23	0.12	0.03	<0.1	0.16	0.57	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.06
SW009	7/08/2020	0902_QC206_200807	Interlab_D	NSW_0902_PFASMGMT		0.25	*4.9*	2.6	**7.6**	0.30	0.29	0.17	<0.02	0.1	0.2	0.72	0.11	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.11	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	9.8
SW009	7/08/2020	0902_QC207_200807	Interlab_D	NSW_0902_PFASMGMT		0.25	*5.0*	2.4	**7.4**	0.31	0.27	0.15	<0.02	0.1	0.2	0.68	0.11	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.10	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	9.6
SW009	8/09/2020	0902_SW009_200908	Normal	NSW_0902_PFASMGMT		0.19	*5.21*	1.47	**6.68**	0.18	0.18	0.17	<0.02	<0.1	0.12	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.09
SW009	8/09/2020	0902_QC108_200908	Field_D	NSW_0902_PFASMGMT		0.18	*5.20*	1.49	**6.69**	0.16	0.19	0.14	<0.02	<0.1	0.11	0.39	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.04
SW009	28/10/2020	0902_SW009_2010281650	Normal	NSW_0902_PFASMGMT		0.05	*2.98*	0.53	**3.51**	0.07	0.06	0.04	<0.02	<0.1	0.06	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.08
SW009	12/11/2020	0902_SW009_201112	Normal	NSW_0902_PFASOMP		0.14	*3.57*	1.47	**5.04**	0.19	0.19	0.10	<0.02	<0.1	0.13	0.41	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.13	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.40
SW009	29/01/2021	0902_SW009_2101290845	Normal	NSW_0902_PFASMGMT		0.15	*3.67*	1.29	**4.96**	0.13	0.11	0.11	<0.02	0.1	0.10	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.27
SW009	29/01/2021	0902_SW009_2101290915	Normal	NSW_0902_PFASMGMT		0.15	*3.61*	1.30	**4.91**	0.14	0.11	0.11	<0.02	0.1	0.12	0.41	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.17	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.28
SW009	29/01/2021	0902_SW009_2101291000	Normal	NSW_0902_PFASMGMT		0.14	*3.44*	1.28	**4.72**	0.14	0.11	0.11	<0.02	0.1	0.12	0.41	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.07
SW009	29/01/2021	0902_SW009_2101291045	Normal	NSW_0902_PFASMGMT		0.14	*3.49*	1.22	**4.71**	0.13	0.10	0.11	<0.02	0.1	0.11	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.01
SW009	29/01/2021	0902_SW009_2101291130	Normal	NSW_0902_PFASMGMT		0.15	*4.17*	1.27	**5.44**	0.13	0.11	0.10	<0.02	<0.1	0.12	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.17	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.67
SW009	29/01/2021	0902_SW009_2101291215	Normal	NSW_0902_PFASMGMT		0.14	*3.70*	1.22	**4.92**	0.13	0.10	0.07	<0.02	<0.1	0.11	0.38	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.17	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.08
SW009	29/01/2021	0902_SW009_2101291300	Normal	NSW_0902_PFASMGMT		0.11	*3.31*	1.14	**4.45**	0.12	0.10	0.10	<0.02	<0.1	0.10	0.36	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.55
SW009	29/01/2021	0902_SW009_2101291345	Normal	NSW_0902_PFASMGMT		0.11	*3.44*	1.01	**4.45**	0.11	0.11	0.08	<0.02	<0.1	0.10	0.28	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.14	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.41
SW009	29/01/2021	0902_SW009_2101291430	Normal	NSW_0902_PFASMGMT		0.07	*2.60*	0.73	**3.33**	0.09	0.08	0.06	<0.02	<0.1	0.06	0.18	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.98
SW009	29/01/2021	0902_SW009_2101291515	Normal	NSW_0902_PFASMGMT		0.08	*3.28*	0.83	**4.11**	0.09	0.09	0.07	<0.02	<0.1	0.07	0.20	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.82
SW009	29/01/2021	0902_QC111_210129	Field_D	NSW_0902_PFASMGMT		0.15	*3.54*	1.31	**4.85**	0.14	0.11	0.11	<0.02	0.1	0.09	0.41	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.18
SW009	29/01/2021	0902_QC112_210129	Field_D	NSW_0902_PFASMGMT		0.14	*3.58*	1.20	**4.78**	0.13	0.10	0.10	<0.02	<0.1	0.11	0.38	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.16	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.96
SW009	29/01/2021	0902_QC210_210129	Interlab_D	NSW_0902_PFASMGMT		0.15	*4.1*	1.4	**5.6**	0.16	0.16	0.14	<0.02	0.1	0.2	0.36	0.08	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.19	0.03	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	7.1
SW009	29/01/2021	0902_QC211_210129	Interlab_D	NSW_0902_PFASMGMT		0.13	*3.7*	1.2	**4.9**	0.14	0.15	0.12	<0.02	0.1	0.1	0.30	0.06	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.17	0.03	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	6.2
SW009	6/05/2021	0902_SW009_210506	Normal	NSW_0902_PFASOMP		0.14	*3.84*	1.73	**5.57**	0.27	0.24	0.11	<0.02	<0.1	0.11	0.44	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.95
SW009	26/11/2021	0902_SW009_2111260835	Normal	NSW_0902_PFASMGMT		0.01	*0.38*	0.11	0.49	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56
SW009	26/11/2021	0902_SW009_2111260850	Normal	NSW_0902_PFASMGMT		<0.01	*0.30*	0.08	0.38	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43
SW009	26/11/2021	0902_SW009_2111260905	Normal	NSW_0902_PFASMGMT		0.01	*0.24*	0.06	0.30	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.33
SW009	26/11/2021	0902_SW009_2111260920	Normal	NSW_0902_PFASMGMT		<0.01	*0.29*	0.07	0.36	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.39
SW009	26/11/2021	0902_SW009_2111260950	Normal	NSW_0902_PFASMGMT		0.02	*0.60*	0.12	0.72	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.77
SW009	26/11/2021	0902_SW009_2111261020	Normal	NSW_0902_PFASMGMT		0.02	*0.92*	0.09	1.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.06
SW009	26/11/2021	0902_SW009_2111261050	Normal	NSW_0902_PFASMGMT		0.01	*0.39*	0.09	0.48	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.52
SW009	26/11/2021	0902_SW009_2111261120	Normal	NSW_0902_PFASMGMT		0.01	*0.72*	0.08	0.80	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.83
SW009	26/11/2021	0902_SW009_2111261220	Normal	NSW_0902_PFASMGMT		<0.01	*0.14*	0.03	0.17	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17

Table T9 - Historical Surface Water Results (PFAS)

					PFAS																															
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water					**10**			**2**																												
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																														
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
SW009	26/11/2021	0902_SW009_2111261320	Normal	NSW_0902_PFASMGMT	<0.01	*0.15*	0.06	0.21	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23
SW009	26/11/2021	0902_QC101_211126	Field_D	NSW_0902_PFASMGMT	<0.01	*0.32*	0.10	0.42	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.47
SW009	26/11/2021	0902_QC201_211126	Interlab_D	NSW_0902_PFASMGMT	0.01	*0.46*	0.11	0.57	<0.01	<0.01	0.01	<0.02	<0.02	<0.02	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.61
SW009	29/11/2021	0902_SW009_211129	Normal	NSW_0902_PFASOMP	0.14	*6.19*	1.79	**7.98**	0.23	0.16	0.11	<0.02	<0.1	0.10	0.46	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.25
SW009	29/11/2021	0902_QC214_211129	Interlab_D	NSW_0902_PFASOMP	0.15	*12*	1.7	**14**	0.16	0.18	0.13	<0.02	0.2	0.09	0.32	0.05	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.02	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	15
SW009	18/01/2022	0902_SW009_220118	Normal	NSW_0902_PFASMGMT	0.18	*4.42*	2.30	**6.72**	0.28	0.27	0.15	<0.02	<0.1	0.12	0.59	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	8.44
SW009	21/02/2022	0902_SW009_2202211800	Normal	NSW_0902_PFASMGMT	0.08	*2.75*	0.92	**3.67**	0.12	0.10	0.04	<0.02	<0.1	0.07	0.27	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.51
SW009	21/02/2022	0902_SW009_2202212000	Normal	NSW_0902_PFASMGMT	0.11	*3.32*	1.06	**4.38**	0.14	0.11	0.05	<0.02	<0.1	0.08	0.31	0.05	0.03	0.04	0.04	<0.02	<0.02	<0.05	<0.05	0.12	0.07	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.53
SW009	22/02/2022	0902_SW009_2202220800	Normal	NSW_0902_PFASMGMT	0.09	*2.66*	0.99	**3.65**	0.14	0.10	0.04	<0.02	<0.1	0.07	0.29	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.53
SW009	22/02/2022	0902_SW009_2202221200	Normal	NSW_0902_PFASMGMT	0.03	*0.91*	0.46	1.37	0.05	0.04	0.03	<0.02	<0.10	<0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.63
SW009	22/02/2022	0902_SW009_2202221400	Normal	NSW_0902_PFASMGMT	0.04	*1.55*	0.48	**2.03**	0.07	0.05	0.02	<0.02	<0.1	0.04	0.15	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.52
SW009	22/02/2022	0902_SW009_2202221600	Normal	NSW_0902_PFASMGMT	0.04	*1.30*	0.58	1.88	0.09	0.06	<0.02	<0.02	<0.1	0.04	0.15	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.36
SW009	23/02/2022	0902_SW009_2202230000	Normal	NSW_0902_PFASMGMT	0.05	*1.44*	0.68	**2.12**	0.11	0.08	0.03	<0.02	<0.1	0.04	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.72
SW009	23/02/2022	0902_SW009_2202230200	Normal	NSW_0902_PFASMGMT	0.06	*1.68*	0.79	**2.47**	0.12	0.09	0.02	<0.02	<0.1	0.06	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.15
SW009	23/02/2022	0902_SW009_2202231000	Normal	NSW_0902_PFASMGMT	0.05	*1.67*	0.66	**2.33**	0.11	0.08	0.02	<0.02	<0.1	0.05	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.93
SW009	23/02/2022	0902_SW009_2202231400	Normal	NSW_0902_PFASMGMT	0.07	*2.36*	0.91	**3.27**	0.15	0.10	0.04	<0.02	<0.1	0.07	0.27	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.08
SW009	26/05/2022	0902_SW009_220526	Normal	NSW_0902_PFASOMP	0.42	*9.47*	5.27	**14.7**	0.70	0.73	0.32	<0.02	0.2	0.26	1.44	0.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	19.0
SW009	18/11/2022	0902_SW009_221118	Normal	NSW_0902_PFASOMP	<0.01	*0.14*	0.08	0.22	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24
SW011	4/07/2017	0902_SW011_040717	Normal	NSW_0902_PFAS	0.53	*16.0*	6.28	**22.3**	0.77	0.74	0.46	<0.02	<0.1	0.27	1.17	0.24	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.72	0.07	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	27.3
SW011	4/07/2017	0902_QC205_040717	Interlab_D	NSW_0902_PFAS	0.37	*9.0*	3.6	**0.9**	0.51	0.49	0.39	<0.02	0.2	0.23	0.95	0.14	0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.73	0.03	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
SW011	15/01/2018	0902_SW011_180115	Normal	NSW_0902_PFAS	0.52	*16.0*	3.40	**19.4**	0.42	0.38	0.34	0.03	0.2	0.50	1.24	0.23	0.05	0.05	<0.02	<0.02	<0.02	<0.05	<0.05	0.40	0.21	<0.05	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	24.0
SW011	15/01/2018	0902_QC213_180115	Interlab_D	NSW_0902_PFAS	0.38	*12*	2.7	**0.75**	0.37	0.35	0.38	<0.02	0.30	0.41	1.0	0.23	0.04	0.03	<0.02	<0.05	<0.1	<0.5	<0.01	0.39	0.15	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
SW011	27/02/2018	0902_SW011_270218	Normal	NSW_0902_PFAS	0.10	*4.21*	0.74	**4.95**	0.09	0.08	0.09	<0.02	<0.1	0.07	0.16	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.68
SW011	27/02/2018	0902_QC220_270218	Interlab_D	NSW_0902_PFAS	0.08	*2.7*	0.69	**0.18**	0.1	0.10	0.08	<0.02	0.09	0.1	0.19	0.04	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.1	0.02	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
SW011	8/11/2019	0902_SW011_191108	Normal	NSW_0902_PFASOMP	0.10	*3.26*	0.77	**4.03**	0.08	0.09	0.06	<0.02	<0.1	0.13	0.27	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.18	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.98
SW011	15/05/2020	0902_SW011_200515	Normal	NSW_0902_PFASOMP	0.13	*4.56*	1.35	**5.91**	0.12	0.16	0.11	<0.02	<0.1	0.12	0.32	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.93
SW011	12/11/2020	0902_SW011_201112	Normal	NSW_0902_PFASOMP	0.12	*4.02*	1.30	**5.32**	0.16	0.16	0.10	<0.02	<0.1	0.11	0.37	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.52
SW011	7/04/2021	0902_QC204_210507	Interlab_D	NSW_0902_PFASOMP	0.024	*1.3*	0.33	0.073	0.054	0.041	0.019	<0.01	<0.05	0.027	0.08	0.015	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	0.022	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	-
SW011	7/05/2021	0902_SW011_210507	Normal	NSW_0902_PFASOMP	0.04	*1.38*	0.39	1.77	0.07	0.06	0.04	<0.02	<0.1	0.04	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.15
SW011	29/11/2021	0902_SW011_211129	Normal	NSW_0902_PFASOMP	0.14	*6.22*	1.75	**7.97**	0.19	0.17	0.12	<0.02	<0.1	0.10	0.42	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.16
SW011	27/05/2022	0902_SW011_220527	Normal	NSW_0902_PFASOMP	0.37	*12.0*	5.28	**17.3**	0.61	0.57	0.40	<0.02	0.1	0.32	1.27	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	21.2
SW011	27/05/2022	0902_QC205_220527	Interlab_D	NSW_0902_PFASOMP	0.31	*7.9*	3.1	**11**	0.49	0.46	0.23	<0.02	0.1	0.2	0.86	0.15	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.06	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	14
SW011	11/11/2022	0902_SW011_221111	Normal	NSW_0902_PFASOMP	0.42	*11.9*	5.44	**17.3**	0.58	0.67	0.36	<0.02	0.1	0.28	1.16	0.20	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.10	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	21.2
SW013	3/07/2017	0902_SW013_030717	Normal	NSW_0902_PFAS	0.10	*0.76*	2.23	**2.99**	0.36	0.34	0.05	<0.02	0.2	0.10	0.32	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.55
SW013	15/01/2018	0902_SW013_180115	Normal	NSW_0902_PFAS	0.17	*0.87*	3.48	**4.35**	0.68	0.50	0.11	<0.02	0.7	0.26	0.90	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.85
SW013	8/11/2019	0902_SW013_191108	Normal	NSW_0902_PFASOMP	<0.01	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
SW013	14/05/2020	0902_SW013_200514	Normal	NSW_0902_PFASOMP	0.01	*0.18*	0.22	0.40	0.03	0.02	<0.02	<0.02	<0.1	0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.52
SW013	12/11/2020	0902_SW013_201112	Normal	NSW_0902_PFASOMP	0.01	*0.20*	0.22	0.42	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.52
SW013	6/05/2021	0902_SW013_210506	Normal	NSW_0902_PFASOMP	<0.01	*0.16*	0.14	0.30	<0.02	<0.02	<0.02	<0.02	0.1	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.45
SW013	29/11/2021	0902_SW013_211129	Normal	NSW_0902_PFASOMP	0.01	*0.20*	0.19	0.39	0.04	0.02	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.52

Table T9 - Historical Surface Water Results (PFAS)

AECOM

					PFAS																															
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water					**10**			**2**																												
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																														
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
SW013	29/11/2021	0902_QC115_211129	Field_D	NSW_0902_PFASOMP	0.01	*0.19*	0.22	0.41	0.03	0.02	<0.02	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56
SW013	27/05/2022	0902_SW013_220527	Normal	NSW_0902_PFASOMP	0.01	*0.17*	0.32	0.49	0.08	0.04	<0.02	<0.02	0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.78
SW013	18/11/2022	0902_SW013_221118	Normal	NSW_0902_PFASOMP	<0.01	*0.14*	0.21	0.35	0.04	0.03	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.46
SW014	3/07/2017	0902_SW014_030717	Normal	NSW_0902_PFAS	0.03	*0.44*	0.33	0.77	0.05	0.04	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.96
SW014	15/01/2018	0902_SW014_180115	Normal	NSW_0902_PFAS	0.03	*0.30*	0.29	0.59	0.03	0.02	<0.02	<0.02	<0.1	0.04	0.09	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.83
SW014	8/11/2019	0902_SW014_191108	Normal	NSW_0902_PFASOMP	0.02	*0.07*	1.30	1.37	0.35	0.35	0.02	<0.02	<0.1	0.06	0.37	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.56
SW014	8/11/2019	0902_QC104_191108	Field_D	NSW_0902_PFASOMP	0.02	*0.22*	0.15	0.37	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.46
SW014	14/05/2020	0902_SW014_200514	Normal	NSW_0902_PFASOMP	0.01	*0.17*	0.08	0.25	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.26
SW014	12/11/2020	0902_SW014_201112	Normal	NSW_0902_PFASOMP	<0.01	*0.11*	0.04	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15
SW014	6/05/2021	0902_SW014_210506	Normal	NSW_0902_PFASOMP	0.15	*0.60*	3.46	**4.06**	0.40	0.41	0.10	<0.02	0.1	0.39	1.94	0.11	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	7.68
SW014	6/05/2021	0902_QC102_210506	Field_D	NSW_0902_PFASOMP	0.20	*0.80*	4.80	**5.60**	0.45	0.64	0.13	<0.02	0.1	0.46	2.52	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	10.2
SW014	25/11/2021	0902_SW014_211125	Normal	NSW_0902_PFASOMP	0.02	*0.34*	0.33	0.67	0.06	0.03	<0.02	<0.02	<0.1	0.02	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.95
SW014	26/05/2022	0902_SW014_220526	Normal	NSW_0902_PFASOMP	0.11	*1.24*	2.28	**3.52**	0.22	0.22	0.08	<0.02	<0.1	0.18	0.85	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.24
SW014	11/11/2022	0902_SW014_221111	Normal	NSW_0902_PFASOMP	0.06	*1.05*	1.28	**2.33**	0.10	0.14	0.05	<0.02	<0.1	0.06	0.35	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.12
SW015	3/07/2017	0902_SW015_030717	Normal	NSW_0902_PFAS	0.02	*0.39*	0.49	0.88	0.06	0.06	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.06
SW015	27/02/2018	0902_SW015_270218	Normal	NSW_0902_PFAS	<0.01	*0.16*	0.07	0.23	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.23
SW015	14/05/2020	0902_SW015_200514	Normal	NSW_0902_PFASOMP	<0.01	*0.26*	0.16	0.42	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
SW015	12/11/2020	0902_SW015_201112	Normal	NSW_0902_PFASOMP	<0.01	*0.09*	0.08	0.17	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
SW015	5/05/2021	0902_SW015_210505	Normal	NSW_0902_PFASOMP	<0.01	*0.09*	0.13	0.22	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.22
SW015	29/11/2021	0902_SW015_211129	Normal	NSW_0902_PFASOMP	<0.01	*0.08*	0.13	0.21	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.25
SW015	30/05/2022	0902_SW015_220530	Normal	NSW_0902_PFASOMP	<0.01	*0.24*	0.29	0.53	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.53
SW015	10/11/2022	0902_SW015_221110	Normal	NSW_0902_PFASOMP	<0.01	*0.35*	0.24	0.59	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.59
SW016	14/11/2009	0902_QC203_191114	Interlab_D	NSW_0902_PFASOMP	<0.01	*0.023*	0.010	0.023	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05	<0.01	-
SW016	3/07/2017	0902_SW016_030717	Normal	NSW_0902_PFAS	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW016	15/01/2018	0902_SW016_180115	Normal	NSW_0902_PFAS	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW016	27/02/2018	0902_SW016_270218	Normal	NSW_0902_PFAS	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW016	14/11/2019	0902_SW016_191114	Normal	NSW_0902_PFASOMP	<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW016	14/05/2020	0902_SW016_200514	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW016	13/11/2020	0902_SW016_201113	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW016	23/04/2021	0902_SW016_210423	Normal	NSW_0902_PFASMGMT	<0.01	*0.02*	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
SW016	23/04/2021	0902_QC200_210423	Interlab_D	NSW_0902_PFASMGMT	<0.01	*0.03*	0.03	0.06	0.01	<0.01	<0.01	<0.02	0.02	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.1
SW016	5/05/2021	0902_SW016_210505	Normal	NSW_0902_PFASOMP	<0.01	*0.03*	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
SW016	29/11/2021	0902_SW016_211129	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	<0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW016	30/05/2022	0902_SW016_220530	Normal	NSW_0902_PFASOMP	<0.01	*0.06*	0.17	0.23	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28
SW016	10/11/2022	0902_SW016_221110	Normal	NSW_0902_PFASOMP	0.02	*0.40*	0.58	0.98	0.05	0.06	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.17
SW016	10/11/2022	0902_QC112_221110	Field_D	NSW_0902_PFASOMP	0.02	*0.34*	0.49	0.83	0.05	0.05	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.00
SW018	4/07/2017	0902_SW018_040717	Normal	NSW_0902_PFAS	<0.01	*0.05*	0.03	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
SW018	15/01/2018	0902_SW018_180115	Normal	NSW_0902_PFAS	<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW018	27/02/2018	0902_SW018_270218	Normal	NSW_0902_PFAS	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW018	25/11/2019	0902_SW018_191125	Normal	NSW_0902_PFASOMP	<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03

Table T9 - Historical Surface Water Results (PFAS)

						PFAS																														
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water						**10**			**2**																											
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																													
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
SW018	25/11/2019	0902_QC111_191125	Field_D	NSW_0902_PFASOMP		<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW018	15/05/2020	0902_SW018_200515	Normal	NSW_0902_PFASOMP		<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW018	13/11/2020	0902_SW018_201113	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW018	6/05/2021	0902_SW018_210506	Normal	NSW_0902_PFASOMP		0.04	*0.62*	0.54	1.16	0.05	0.07	0.03	<0.02	<0.1	0.03	0.14	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.54
SW018	6/05/2021	0902_QC104_210506	Field_D	NSW_0902_PFASOMP		0.04	*0.72*	0.62	1.34	0.07	0.06	0.04	<0.02	<0.1	0.02	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.75
SW018	29/11/2021	0902_SW018_211129	Normal	NSW_0902_PFASOMP		<0.01	*0.11*	0.04	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.17
SW018	31/05/2022	0902_SW018_220531	Normal	NSW_0902_PFASOMP		0.02	*0.44*	0.34	0.78	0.05	0.04	<0.02	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.98
SW018	31/05/2022	0902_QC211_220531	Interlab_D	NSW_0902_PFASOMP		0.02	*0.29*	0.19	0.48	0.03	0.02	<0.01	<0.02	0.03	<0.02	0.05	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.64
SW018	7/11/2022	0902_SW018_221107	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
SW019	4/07/2017	0902_SW019_040717	Normal	NSW_0902_PFAS		0.02	*0.07*	0.04	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.15
SW019	15/01/2018	0902_SW019_180115	Normal	NSW_0902_PFAS		<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW019	25/11/2019	0902_SW019_191125	Normal	NSW_0902_PFASOMP		0.02	*0.03*	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10
SW019	15/05/2020	0902_SW019_200515	Normal	NSW_0902_PFASOMP		0.01	*0.04*	0.03	0.07	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
SW019	13/11/2020	0902_SW019_201113	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW019	7/05/2021	0902_SW019_210507	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
SW019	29/11/2021	0902_SW019_211129	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	0.01	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW019	31/05/2022	0902_SW019_220531	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
SW019	31/05/2022	0902_QC111_220531	Field_D	NSW_0902_PFASOMP		<0.01	*0.03*	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
SW019	7/11/2022	0902_SW019_221107	Normal	NSW_0902_PFASOMP		0.01	*0.05*	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10
SW019	7/11/2022	0902_QC109_221107	Field_D	NSW_0902_PFASOMP		<0.01	*0.04*	0.04	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
SW019	7/11/2022	0902_QC209_221107	Interlab_D	NSW_0902_PFASOMP		<0.01	*0.04*	0.03	0.07	<0.01	<0.01	<0.01	<0.02	0.04	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.12
SW020	13/11/2017	0902_SW20_131117	Normal	NSW_0902_PFAS		0.02	*0.06*	0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
SW020	15/01/2018	0902_SW020_180115	Normal	NSW_0902_PFAS		0.03	*0.06*	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
SW020	25/11/2019	0902_SW020_191125	Normal	NSW_0902_PFASOMP		0.02	*0.05*	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
SW020	15/05/2020	0902_SW020_200515	Normal	NSW_0902_PFASOMP		0.01	*0.07*	0.03	0.10	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
SW020	13/11/2020	0902_SW020_201113	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW020	7/05/2021	0902_SW020_210507	Normal	NSW_0902_PFASOMP		0.01	*0.17*	0.02	0.19	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.20
SW020	29/11/2021	0902_SW020_211129	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	0.01	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW020	31/05/2022	0902_SW020_220531	Normal	NSW_0902_PFASOMP		0.01	*0.07*	0.04	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.12
SW020	7/11/2022	0902_SW020_221107	Normal	NSW_0902_PFASOMP		0.01	*0.06*	0.04	0.10	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.13
SW022	13/11/2017	0902_SW22_131117	Normal	NSW_0902_PFAS		0.01	*0.14*	0.05	0.19	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.31
SW022	15/01/2018	0902_SW022_180115	Normal	NSW_0902_PFAS		0.01	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10
SW022	15/11/2019	0902_SW022_191115	Normal	NSW_0902_PFASOMP		0.04	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
SW022	15/11/2019	0902_QC109_191115	Field_D	NSW_0902_PFASOMP		0.04	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.14
SW022	15/05/2020	0902_SW022_200515	Normal	NSW_0902_PFASOMP		0.02	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
SW022	13/11/2020	0902_SW022_201113	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW022	5/05/2021	0902_SW022_210505	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW022	29/11/2021	0902_SW022_211129	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
SW022	30/05/2022	0902_SW022_220530	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	0.07	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11
SW022	30/05/2022	0902_QC209_220530	Interlab_D	NSW_0902_PFASOMP		<0.01	*0.03*	0.05	0.07	<0.01	<0.01	<0.01	<0.02	0.04	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.12

Table T9 - Historical Surface Water Results (PFAS)

					PFAS																															
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water					**10**			**2**																												
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																														
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
SW022	3/11/2022	0902_SW022_221103	Normal	NSW_0902_PFASOMP	0.01	*0.05*	0.20	0.25	0.04	0.04	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.42
SW022	3/11/2022	0902_QC104_221103	Field_D	NSW_0902_PFASOMP	0.01	*0.04*	0.19	0.23	0.04	0.04	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.39
SW023	13/11/2017	0902_SW23_131117	Normal	NSW_0902_PFAS	0.02	*0.38*	0.10	0.48	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.58
SW023	13/11/2017	0902_QC181_131117	Field_D	NSW_0902_PFAS	0.02	*0.38*	0.10	0.48	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.56
SW023	15/01/2018	0902_SW023_180115	Normal	NSW_0902_PFAS	0.03	*0.49*	0.19	0.68	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.83
SW023	15/01/2018	0902_QC112_180115	Field_D	NSW_0902_PFAS	0.03	*0.54*	0.20	0.74	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.88
SW023	11/11/2019	0902_SW023_191111	Normal	NSW_0902_PFASOMP	0.01	*0.23*	0.06	0.29	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.33
SW023	15/05/2020	0902_SW023_200515	Normal	NSW_0902_PFASOMP	0.01	*0.10*	0.06	0.16	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.19
SW023	13/11/2020	0902_SW023_201113	Normal	NSW_0902_PFASOMP	<0.01	*0.07*	0.03	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.10
SW023	6/05/2021	0902_SW023_210506	Normal	NSW_0902_PFASOMP	0.08	*1.66*	0.81	**2.47**	0.11	0.12	0.08	<0.02	<0.1	0.05	0.21	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.16
SW023	25/11/2021	0902_SW023_211125	Normal	NSW_0902_PFASOMP	0.01	*0.30*	0.13	0.43	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.51
SW023	25/11/2021	0902_QC108_211125	Field_D	NSW_0902_PFASOMP	0.01	*0.29*	0.12	0.41	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.48
SW023	31/05/2022	0902_SW023_220531	Normal	NSW_0902_PFASOMP	0.03	*0.46*	0.37	0.83	0.05	0.04	<0.02	<0.02	<0.1	0.03	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.06
SW023	7/11/2022	0902_SW023_221107	Normal	NSW_0902_PFASOMP	0.02	*0.29*	0.17	0.46	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.57
SW023	7/11/2022	0902_QC204_221107	Interlab_D	NSW_0902_PFASOMP	0.01	*0.22*	0.16	0.38	0.03	0.02	<0.01	<0.02	0.05	<0.02	0.03	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	0.52
SW024	13/11/2017	0902_SW24_131117	Normal	NSW_0902_PFAS	<0.01	*0.04*	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04
SW024	19/01/2018	0902_SW024_190118	Normal	NSW_0902_PFAS	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW024	15/11/2019	0902_SW024_191115	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW024	14/05/2020	0902_SW024_200514	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW024	12/11/2020	0902_SW024_201112	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW024	5/05/2021	0902_SW024_210505	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW024	26/11/2021	0902_SW024_211126	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	<0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW024	31/05/2022	0902_SW024_220531	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW024	31/05/2022	0902_QC212_220531	Interlab_D	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	<0.01
SW024	3/11/2022	0902_SW024_221103	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW030	17/11/2013	0902_QC280_131117	Interlab_D	NSW_0902_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5	-
SW030	13/11/2017	0902_SW30_131117	Normal	NSW_0902_PFAS	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW030	18/01/2018	0902_SW030_180118	Normal	NSW_0902_PFAS	<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW030	27/02/2018	0902_SW030_270218	Normal	NSW_0902_PFAS	<0.01	*0.03*	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03
SW030	15/11/2019	0902_SW030_191115	Normal	NSW_0902_PFASOMP	<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW030	15/05/2020	0902_SW030_200515	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW030	13/11/2020	0902_SW030_201113	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW030	7/05/2021	0902_SW030_210507	Normal	NSW_0902_PFASOMP	<0.01	*0.04*	0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.06
SW030	29/11/2021	0902_SW030_211129	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW030	31/05/2022	0902_SW030_220531	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW030	31/05/2022	0902_QC112_220531	Field_D	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW030	7/11/2022	0902_SW030_221107	Normal	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01
SW035	16/11/2017	0902_SW035_161117	Normal	NSW_0902_PFAS	<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW035	15/01/2018	0902_SW035_180115	Normal	NSW_0902_PFAS	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02
SW035	15/11/2019	0902_SW035_191115	Normal	NSW_0902_PFASOMP	<0.01	*0.02*	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02

Table T9 - Historical Surface Water Results (PFAS)

						PFAS																												
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05	0.01
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
SW035	14/05/2020	0902_SW035_200514	Normal	NSW_0902_PFASOMP		<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW035	13/11/2020	0902_SW035_201113	Normal	NSW_0902_PFASOMP		<0.01	*0.01*	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01
SW035	6/05/2021	0902_SW035_210506	Normal	NSW_0902_PFASOMP		<0.01	*0.05*	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07
SW035	25/11/2021	0902_SW035_211125	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.05
SW035	30/05/2022	0902_SW035_220530	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	0.05	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.08
SW035	3/11/2022	0902_SW035_221103	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	0.05	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09
SW037	27/11/2017	0902_SW037_271117	Normal	NSW_0902_PFAS		0.01	*0.12*	0.06	0.18	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.24
SW037	15/01/2018	0902_SW037_180115	Normal	NSW_0902_PFAS		0.03	*0.76*	0.07	0.83	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.94
SW037	27/02/2018	0902_SW037_270218	Normal	NSW_0902_PFAS		0.02	*0.32*	0.04	0.36	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.43
SW037	11/11/2019	0902_SW037_191111	Normal	NSW_0902_PFASOMP		0.01	*0.19*	0.04	0.23	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27
SW037	14/05/2020	0902_SW037_200514	Normal	NSW_0902_PFASOMP		0.02	*0.31*	0.16	0.47	0.03	0.02	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.67
SW037	13/11/2020	0902_SW037_201113	Normal	NSW_0902_PFASOMP		0.01	*0.15*	0.07	0.22	0.10	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.38
SW037	5/05/2021	0902_SW037_210505	Normal	NSW_0902_PFASOMP		<0.01	*0.19*	0.07	0.26	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28
SW037	29/11/2021	0902_SW037_211129	Normal	NSW_0902_PFASOMP		0.01	*0.42*	0.13	0.55	0.04	<0.02	<0.02	<0.02	<0.1	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.67
SW037	27/05/2022	0902_SW037_220527	Normal	NSW_0902_PFASOMP		0.02	*0.56*	0.27	0.83	0.03	0.02	<0.02	<0.02	<0.1	0.03	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.02
SW037	8/11/2022	0902_SW037_221108	Normal	NSW_0902_PFASOMP		<0.01	*0.18*	0.08	0.26	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.28

Notes:

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
Bold	Denotes exceedance of adoped human health screening criteria
Italics	Denotes exceedance of adopted ecological screening criteria

Table T10 - Historical Sediment Results (PFAS)

AECOM

	PFAS																														
	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0005	0.0001
Loc. Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																											
SD001	3/07/2017	0902_SD001_030717	Normal	NSW_0902_PFAS	0.0348	2.05	0.0175	2.07	0.0003	0.0005	0.0052	0.0329	0.002	0.0032	0.0139	0.0071	0.228	1.12	1.03	0.150	0.0121	0.0031	<0.0005	0.508	4.73	0.0390	0.0104	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	10.0
SD001	3/07/2017	0902_QC108_030717	Field_D	NSW_0902_PFAS	0.634	38.9	0.671	39.6	<0.0100	0.0135	0.183	0.318	<0.010	0.0135	0.508	0.105	3.25	22.9	8.38	4.46	0.631	0.249	<0.0100	11.0	57.7	0.497	0.527	<0.0250	<0.0100	<0.0250	<0.0250	<0.0100	<0.0250	151
SD001	27/02/2018	0902_SD001_270218	Normal	NSW_0902_PFAS	0.252	5.01	0.0253	5.04	0.0006	0.0006	0.0221	0.0411	0.002	0.0056	0.0319	0.0413	1.16	2.76	2.06	0.825	0.105	0.0293	<0.0005	0.532	5.66	0.0065	0.0557	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	18.6
SD001	4/11/2019	0902_SD001_191104	Normal	NSW_0902_PFASOMP	0.0565	14.6	0.0160	14.6	0.0051	<0.0050	0.0244	0.153	<0.005	0.0067	0.0219	0.0152	0.729	13.9	12.6	3.42	0.250	0.0506	<0.0050	0.124	19.9	0.351	0.185	<0.0125	<0.0050	<0.0125	<0.0125	<0.0050	<0.0125	66.4
SD001	4/11/2019	0902_QC101_191104	Field_D	NSW_0902_PFASOMP	0.0435	7.84	0.0124	7.85	<0.0050	<0.0050	0.0171	0.106	<0.005	<0.0050	0.0171	0.0109	0.464	8.87	8.01	2.59	0.177	0.0373	<0.0050	0.0995	13.5	0.284	0.142	<0.0125	<0.0050	<0.0125	<0.0125	<0.0050	<0.0125	42.2
SD001	15/05/2020	0902_SD001_200515	Normal	NSW_0902_PFASOMP	0.0938	6.56	0.0255	6.58	0.0015	0.0017	0.0175	0.250	0.002	0.0097	0.0289	0.0297	0.607	5.32	5.83	3.93	0.592	0.424	<0.0005	0.119	6.83	0.101	0.155	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	0.0067	30.9
SD001	13/11/2020	0902_SD001_201113	Normal	NSW_0902_PFASOMP	0.0622	5.84	0.0149	5.85	0.0008	0.0008	0.0153	0.0903	0.003	0.0056	0.0133	0.0136	0.732	3.14	2.72	1.90	0.292	0.167	<0.0005	0.0683	6.32	0.0541	0.0694	<0.0005	0.0009	<0.0005	<0.0005	<0.0002	<0.0005	21.5
SD001	13/11/2020	0902_QC107_201113	Field_D	NSW_0902_PFASOMP	0.0310	2.70	0.0081	2.71	0.0005	0.0005	0.0074	0.0393	0.002	0.0031	0.0071	0.0085	0.363	1.46	1.34	0.876	0.140	0.0659	<0.0005	0.0358	2.97	0.0354	0.0408	<0.0005	0.0003	<0.0005	<0.0005	<0.0002	<0.0005	10.1
SD001	7/05/2021	0902_QC107_210507	Field_D	NSW_0902_PFASOMP	0.0493	2.78	0.0498	2.83	0.0031	0.0031	0.0422	0.318	<0.005	0.0067	0.0146	0.0146	0.494	3.81	5.53	3.95	0.417	0.117	<0.0010	0.0458	5.22	0.323	0.121	<0.0025	<0.0010	<0.0025	<0.0025	<0.0010	0.0899	23.4
SD001	7/05/2021	0902_SD001_210507	Normal	NSW_0902_PFASOMP	0.0124	1.98	0.0135	1.99	0.0012	0.0006	0.0086	0.0576	<0.002	0.0035	0.0068	0.0051	0.112	1.10	1.22	0.770	0.159	0.0488	<0.0005	0.0158	1.81	0.0914	0.0251	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	0.0127	7.45
SD001	26/11/2021	0902_QC209_211126	Interlab_D	NSW_0902_PFASOMP	0.11	11	0.093	11	0.0052	0.0068	0.028	0.28	0.0042	0.011	0.029	0.037	0.66	5.6	8.8	11	2.5	1.2	<0.0001	0.12	8.5	1.1	0.37	0.002	0.0027	<0.001	<0.001	0.0024	<0.005	52
SD001	26/11/2021	0902_SD001_211126	Normal	NSW_0902_PFASOMP	0.104	14.3	0.0885	14.4	0.0054	0.0075	0.0282	0.322	<0.001	0.0105	0.0366	0.0339	0.708	6.81	10.7	8.99	1.52	1.01	<0.0005	0.132	5.35	0.718	0.183	<0.0005	0.0024	<0.0005	<0.0005	0.0020	<0.0005	51.1
SD001	24/05/2022	0902_SD001_220524	Normal	NSW_0902_PFASOMP	0.0315	4.24	0.0610	4.30	0.0037	0.0050	0.0096	0.218	0.002	0.0061	0.0120	0.0098	0.0817	0.490	2.94	3.72	0.477	0.207	<0.0005	0.0220	1.03	0.244	0.0693	<0.0005	0.0014	<0.0005	<0.0005	<0.0002	0.0524	13.9
SD001	24/05/2022	0902_QC101_220524	Field_D	NSW_0902_PFASOMP	0.0634	6.59	0.0980	6.69	0.0076	0.0090	0.0236	0.349	0.004	0.0105	0.0263	0.0220	0.127	0.891	3.50	4.41	0.622	0.389	<0.0005	0.0539	1.83	0.0688	0.0903	<0.0005	0.0018	<0.0005	<0.0005	<0.0002	0.0785	19.3
SD001	7/11/2022	0902_QC206_221107	Interlab_D	NSW_0902_PFASOMP	0.051	6.5	0.069	6.6	0.0038	0.0053	0.019	0.32	0.002	0.0051	0.014	0.014	0.33	2.6	4.6	5.1	1.2	0.98	<0.0005	0.046	3.6	0.35	0.093	<0.005	<0.001	<0.005	<0.005	<0.001	<0.02	26
SD001	7/11/2022	0902_SD001_221107	Normal	NSW_0902_PFASOMP	0.0926	8.20	0.218	8.42	0.0051	0.0112	0.0367	0.318	<0.005	0.0054	0.0222	0.0291	0.423	2.21	5.53	5.36	1.23	1.02	<0.0010	0.0925	3.52	0.493	0.128	<0.0025	<0.0010	<0.0025	<0.0025	<0.0010	<0.0025	28.9
SD001	7/11/2022	0902_QC106_221107	Field_D	NSW_0902_PFASOMP	0.101	8.53	0.204	8.73	0.0053	0.0109	0.0347	0.320	<0.005	0.0055	0.0224	0.0275	0.386	2.27	5.58	5.46	1.13	1.03	<0.0010	0.0926	3.82	0.511	0.128	<0.0025	<0.0010	<0.0025	<0.0025	<0.0010	<0.0025	29.7
SD002	4/07/2017	0902_SD002_040717	Normal	NSW_0902_PFAS	0.0298	1.68	0.237	1.92	0.0023	0.0032	0.0157	0.0177	0.002	0.0059	0.0097	0.0076	0.0133	0.0026	0.0060	0.0114	0.0017	0.0032	<0.0005	0.0742	0.0424	0.0023	0.0378	<0.0005	<0.0002	<0.0005	<0.0005	0.0002	<0.0005	2.21
SD002	15/01/2018	0902_SD002_180115	Normal	NSW_0902_PFAS	0.0039	0.461	0.0160	0.477	0.0014	0.0018	0.0034	0.0051	<0.001	0.0016	0.0030	0.0019	0.0050	0.0063	0.0059	0.0057	0.0018	0.0037	<0.0005	0.0179	0.0112	0.0008	0.0153	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.573
SD002	4/11/2019	0902_SD002_191104	Normal	NSW_0902_PFASOMP	0.0069	0.404	0.0394	0.443	0.0028	0.0029	0.0036	0.0179	0.003	0.0088	0.0062	0.0028	0.0072	0.0150	0.0134	0.0143	0.0054	0.0049	<0.0005	0.0031	0.0051	0.0108	0.0262	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.604
SD002	14/05/2020	0902_SD002_200514	Normal	NSW_0902_PFASOMP	0.0059	0.311	0.0446	0.356	0.0047	0.0045	0.0047	0.0034	0.004	0.0054	0.0106	0.0026	0.0054	0.0117	0.0115	0.0126	0.0024	<0.0025	<0.0010	<0.0010	0.0048	0.0020	0.0173	<0.0025	<0.0010	<0.0025	<0.0025	<0.0010	<0.0025	0.469
SD002	13/11/2020	0902_SD002_201113	Normal	NSW_0902_PFASOMP	0.0046	0.345	0.0286	0.374	0.0031	0.0024	0.0036	0.0031	<0.001	0.0022	0.0080	<0.0002	0.0042	0.0189	0.0105	0.0075	0.0020	<0.0005	<0.0005	0.0018	0.0030	<0.0005	0.0131	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.462
SD002	13/11/2020	0902_QC207_201113	Interlab_D	NSW_0902_PFASOMP	0.0045	0.51	0.035	0.545	0.0027	0.0026	0.0037	0.0048	<0.002	0.0041	0.0058	0.0021	0.0045	0.022	0.016	0.017	0.0043	0.004	<0.001	0.0016	0.0042	<0.002	0.015	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	-
SD002	5/05/2021	0902_SD002_210505	Normal	NSW_0902_PFASOMP	0.0107	0.599	0.0599	0.659	0.0036	0.0051	0.0083	0.0122	<0.005	0.0059	0.0074	0.0033	0.0107	0.0198	0.0282	0.0344	0.0092	0.0056	<0.0010	0.0021	0.0048	0.0043	0.0186	<0.0025	<0.0010	<0.0025	<0.0025	<0.0010	<0.0025	0.853
SD002	29/11/2021	0902_SD002_211129	Normal	NSW_0902_PFASOMP	0.0028	0.593	0.0379	0.631	0.0028	0.0028	0.0060	0.0121	<0.001	0.0016	0.0052	0.0009	0.0034	0.0117	0.0116	0.0147	0.0048	0.0045	<0.0005	0.0007	0.0026	0.0006	0.0231	<0.0005	<0.0002	<0.0005	<0.0005	0.0003	<0.0005	0.743
SD002	27/05/2022	0902_QC207_220527	Interlab_D	NSW_0902_PFASOMP	0.01	1.4	0.11	1.5	0.011	0.013	0.025	0.019	0.0028	0.0046	0.018	0.0036	0.0024	0.0053	0.012	0.031	0.014	0.009	<0.0001	0.0013	0.0058	0.0044	0.044	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	1.8
SD002	27/05/2022	0902_SD002_220527	Normal	NSW_0902_PFASOMP	0.0115	1.49	0.157	1.65	0.0124	0.0153	0.0261	0.0138	0.003	0.0054	0.0214	0.0044	0.0027	0.0067	0.0152	0.0263	0.0084	0.0072	<0.0005	0.0011	0.0098	0.0022	0.0349	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	1.87
SD002	8/11/2022	0902_SD002_221108	Normal	NSW_0902_PFASOMP	0.0053	1.09	0.0864	1.18	0.0048	0.0055	0.0151	0.0136	<0.005	0.0022	0.0072	0.0016	0.0014	0.0030	0.0050	0.0140	0.0058	0.0059	<0.0010	<0.0010	0.0019	<0.0010	0.0318	<0.0025	<0.0010	<0.0025	<0.0025	<0.0010	<0.0025	1.30
SD003	4/07/2017	0902_SD003_040717	Normal	NSW_0902_PFAS	0.0082	0.936	0.0947	1.03	0.0022	0.0027	0.0054	0.0212	0.001	0.0029	0.0077	0.0031	0.0073	0.0148	0.0110	0.0039	0.0011	0.0006	<0.0005	0.0084	0.0125	0.0005	0.0174	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	1.16
SD003	15/01/2018	0902_QC211_180115	Interlab_D	NSW_0902_PFAS	0.022	3.7	0.086	3.786	0.0052	0.0063	0.039	0.083	0.0036	0.01	0.018	0.0095	0.03	0.042	0.032	0.058	0.013	<0.05	<0.001	0.055	0.052	0.01	0.034	<0.01	<0.002	<0.01	<0.01	<0.002	<0.05	-
SD003	15/01/2018	0902_SD003_180115	Normal	NSW_0902_PFAS	0.0260	1.98	0.0968	2.08	0.0060	0.0058	0.0187	0.0214	<0.001	0.0192	0.0192	0.0120	0.0299	0.0388	0.0193	0.0245	0.0099	0.0349	<0.0005	0.779	0.0778	0.0067	0.0730	<0.0006	0.0006	<0.0006	<0.0006	0.0009	<0.0006	3.30
SD003	27/02/2018	0902_SD003_270218	Normal	NSW_0902_PFAS	0.0069	0.289	0.0200	0.309	0.0016	0.0014	0.0023	0.0068	<0.001	0.0027	0.0055	0.0028	0.0060	0.0087	0.0047	0.0050	0.0004	<0.0005	<0.0005	0.0043	0.0027	<0.0005	0.0055	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.376
SD003	27/02/2018	0902_QC121_270218	Field_D	NSW_0902_PFAS	0.0071	0.297	0.0215	0.318	0.0019	0.0016	0.0030	0.0081	<0.001	0.0026	0.0058	0.0028	0.0048	0.0088	0.0050	0.0058	0.0006	<0.0005	<0.0005	0.0037	0.0045	<0.0005	0.0067	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.391
SD003	11/11/2019	0902_SD003_191111	Normal	NSW_0902_PFASOMP	0.0114	2.66	0.149	2.81	0.0132	0.0136	0.0158	0.0359	0.003	0.0047	0.0245	0.0032	0.0217	0.0411	0.0136	0.0209	0.0043	0.0039	<0.0005	0.0066	0.0370	0.0063	0.0337	<0.0005	<0.0002	<0.0005	<0.0005	0.0007	<0.0005	3.12
SD003	14/05/2020	0902_SD003_200514	Normal	NSW_0902_PFASOMP	0.0113	1.46	0.0683	1.53	0.0061	0.0057	0.0117	0.0550	0.009	0.0032	0.0133	0.0036	0.0113	0.0441	0.0514	0.0784	0.0194	0.0113	<0.0025	0.0194	0.0639	0.0150	0.0647	<0.0062	<0.0025	<0.0062	<0.0062	<0.0025	<0.0062	2.03
SD003	13/11/2020	0902_SD003_201113	Normal	NSW_0902_PFASOMP	0.0047	0.497	0.0350	0.532	0.0022	0.0025	0.0044	0.0138	0.001	0.0020	0.0055	0.0018	0.0038	0.0121	0.0115	0.0084	0.0021	0.0005	<0.0005	0.0008	0.0019	<0.0005	0.0177	<0.0005	<0.0002	<0.0005	<0.0005	0.0002	<0.0005	0.629
SD003	5/05/2021	0902_SD003_210505	Normal	NSW_0902_PFASOMP	0.0105	0.630	0.0771	0.707	0.0041	0.0066	0.0092	0.0288	0.003	0.0077	0.0109	0.0039	0.0096	0.0198	0.0211	0.0230	0.0049	0.0025	<0.0005	0.0010	0.0010	<0.0005	0.0128	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.888
SD003	29/11/2021	0902_QC210_211129	Interlab_D	NSW_0902_PFASOMP	0.0054	1.1	0.07	1.1	0.0038	0.0046	0.011	0.015	0.002	0.0031	0.0073	0.0022	0.0068	0.025	0.029	0.051	0.03	0.005	<0.0001	0.0014	0.01	0.002	0.024	<0.001	<0.0002	<0.001	<0.001	0.0002	<0.005	1.4
SD003	29/11/2021	0902_SD003_211129	Normal	NSW_0902_PFASOMP	0.0094	1.29	0.106	1.40	0.0067	0.0073	0.0092	0.0534	0.003	0.0076	0.0136	0.0039	0.0076	0.0247	0.0344	0.0490	0.0110	<0.0005	<0.0005	0.0013	0.0030	0.0009	0.0232	<0.0005	<0.0002	<0.0005	<0.0005	0.0003	<0.0005	1.66
SD003	27/05/2022	0902_SD003_220527	Normal	NSW_0902_PFASOMP	0.0055	1.18	0.0818	1.26	0.0064	0.0073	0.0149	0.0092	0.001	0.0022	0.0103	0.0022	0.0013	0.0034	0.0068	0.0120	0.0035	0.0025	<0.0005	0.0007	0.0046	0.0013	0.0066	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	1.36
SD003	8/11/2022	0902_SD003_221108	Normal	NSW_0902_PFASOMP	0.0050	0.783	0.0680	0.851	0.0046	0.0053	0.0097	0.0070	<0.005	0.0019	0.0081	0.0018	<0.0010	0.0023	0.0062	0.0103	0.0035	0.0028	<0.0010	<0.0010	0.0026	<0.0010	0.0085	<0.0025	<0.0010	<0.0025	<0.0025	<0.0010	<0.0025	0.931
SD005	4/07/2017	0902_SD005_040717	Normal	NSW_0902_PFAS	<0.0002	0.0068	0.0004	0.0072	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0072
SD005	8/11/2019	0902_SD005_191108	Normal	NSW_0902_PFASOMP	<0.0002	0.0044	<0.0002	0.0044	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0044
SD005	14/05/2020	0902_SD005_200514	Normal	NSW_0902_PFASOMP	<0.0002	0.0112	0.0007	0.0119	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0119
SD005	14/05/2020	0902_QC105_200514	Field_D	NSW_0902_PFASOMP	<0.0002	0.0148	0.0007	0.0155	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0155
SD005	12/11/2020	0902_SD005_201112	Normal	NSW_0902_PFASOMP	<0.0002	0.0083	0.0005	0.0088	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0088
SD005	12/11/2020	0902_QC105_201112	Field_D	NSW_0902_PFASOMP	<0.0002	0.0093	0.0008	0.0101	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0101
SD005	6/05/2021	0902_SD005_210506	Normal	NSW_0902_PFASOMP	<0.0002	0.0116	0.0012	0.0128	0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0130
SD005	25/11/2021	0902_SD005_211125	Normal	NSW_0902_PFASOMP	<0.0002	0.0167	0.0012	0.0179	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0183
SD005	26/05/2022	0902_SD005_220526	Normal	NSW_0902_PFASOMP	<0.0002	0.0073	0.0002	0.0075	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0075
SD005	11/11/2022	0902_SD005_221111	Normal	NSW_0902_PFASOMP	<0.0002	0.0108	0.0003	0.0111	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0111
SD007	4/07/2017	0902_SD007_040717	Normal	NSW_0902_PFAS	0.0003	0.0146	0.0015	0.0161	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	0.0003	0.0003	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.0017	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0187

Table T10 - Historical Sediment Results (PFAS)

AECOM

	PFAS																														
	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0005	0.0001

Loc. Code	Date	Field ID	Sample Type	Project ID																													
SD007	15/01/2018	0902_SD007_180115	Normal	NSW_0902_PFAS	<0.0002	0.0103	0.0009	0.0112	<0.0002	<0.0002	0.0009	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0123
SD007	8/11/2019	0902_SD007_191108	Normal	NSW_0902_PFASOMP	<0.0002	0.0044	0.0007	0.0051	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0051
SD007	14/05/2020	0902_SD007_200514	Normal	NSW_0902_PFASOMP	<0.0002	0.0033	0.0002	0.0035	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0035
SD007	14/05/2020	0902_QC207_200514	Interlab_D	NSW_0902_PFASOMP	<0.001	0.0057	<0.001	0.0057	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	-
SD007	12/11/2020	0902_SD007_201112	Normal	NSW_0902_PFASOMP	<0.0002	0.0035	0.0005	0.0040	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0042
SD007	12/11/2020	0902_QC205_201112	Interlab_D	NSW_0902_PFASOMP	<0.001	0.0041	<0.001	0.0041	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	-
SD007	6/05/2021	0902_SD007_210506	Normal	NSW_0902_PFASOMP	<0.0002	0.0012	0.0002	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0019
SD007	29/11/2021	0902_SD007_211129	Normal	NSW_0902_PFASOMP	<0.0002	0.0121	0.0008	0.0129	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0129
SD007	29/11/2021	0902_QC111_211129	Field_D	NSW_0902_PFASOMP	<0.0002	0.0100	0.0012	0.0112	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0115
SD007	26/05/2022	0902_SD007_220526	Normal	NSW_0902_PFASOMP	<0.0002	0.0018	<0.0002	0.0018	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0018
SD007	11/11/2022	0902_SD007_221111	Normal	NSW_0902_PFASOMP	<0.0002	0.0045	0.0004	0.0049	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0049
SD008	3/07/2017	0902_SD008_030717	Normal	NSW_0902_PFAS	<0.0002	0.0385	0.0019	0.0404	<0.0002	<0.0002	0.0003	0.0008	<0.001	<0.0002	<0.0002	<0.0002	0.0002	0.0003	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.0008	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0430
SD008	27/02/2018	0902_SD008_270218	Normal	NSW_0902_PFAS	0.0004	0.0367	0.0043	0.0410	0.0003	0.0003	0.0003	0.0008	<0.001	<0.0002	0.0006	0.0005	0.0002	0.0002	0.0004	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0452
SD008	8/11/2019	0902_SD008_191108	Normal	NSW_0902_PFASOMP	<0.0002	0.0068	0.0006	0.0074	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	0.0012	<0.0005	0.0086
SD008	14/05/2020	0902_SD008_200514	Normal	NSW_0902_PFASOMP	<0.0002	0.0109	0.0018	0.0127	0.0002	0.0004	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0133
SD008	14/05/2020	0902_QC108_200514	Field_D	NSW_0902_PFASOMP	<0.0002	0.0161	0.0032	0.0193	0.0003	0.0003	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0201
SD008	12/11/2020	0902_SD008_201112	Normal	NSW_0902_PFASOMP	0.0002	0.0172	0.0019	0.0191	0.0006	<0.0002	<0.0002	<0.0002	<0.001	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0204
SD008	6/05/2021	0902_SD008_210506	Normal	NSW_0902_PFASOMP	<0.0002	0.0043	0.0020	0.0063	0.0004	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0069
SD008	29/11/2021	0902_SD008_211129	Normal	NSW_0902_PFASOMP	<0.0002	0.0056	0.0011	0.0067	<0.0002	<0.0002	0.0010	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0009	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0086
SD008	29/11/2021	0902_QC114_211129	Field_D	NSW_0902_PFASOMP	<0.0002	0.0036	0.0010	0.0046	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0046
SD008	26/05/2022	0902_SD008_220526	Normal	NSW_0902_PFASOMP	<0.0002	0.0072	0.0010	0.0082	<0.0002	<0.0002	<0.0002	0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0084
SD008	11/11/2022	0902_SD008_221111	Normal	NSW_0902_PFASOMP	<0.0002	0.0209	0.0024	0.0233	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0236
SD009	3/07/2017	0902_SD009_030717	Normal	NSW_0902_PFAS	0.0016	0.183	0.0067	0.190	<0.0002	<0.0002	0.0010	0.0029	<0.001	0.0005	0.0006	0.0004	0.0008	0.0007	0.0007	0.0006	0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0010	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.201
SD009	15/01/2018	0902_SD009_180115	Normal	NSW_0902_PFAS	0.0008	0.263	0.0086	0.272	<0.0002	<0.0002	0.0011	0.0064	<0.001	<0.0002	0.0003	0.0002	0.0003	0.0006	0.0004	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0048	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.287
SD009	5/02/2018	0902_SD09_050218	Normal	NSW_0902_PFAS	0.0004	0.191	0.0024	0.193	<0.0002	<0.0002	0.0007	0.0094	<0.001	<0.0002	<0.0002	<0.0002	0.0002	0.0004	0.0005	0.0004	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0011	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.206
SD009	27/02/2018	0902_SD009_270218	Normal	NSW_0902_PFAS	0.0016	0.0917	0.0071	0.0988	0.0003	0.0004	0.0008	0.0027	0.002	<0.0002	0.0006	0.0004	0.0003	0.0006	0.0007	0.0007	<0.0002	<0.0005	<0.0005	0.0014	0.0007	<0.0005	0.0009	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.113
SD009	4/11/2019	0902_SD009_191104	Normal	NSW_0902_PFASOMP	<0.0002	0.0178	0.0009	0.0187	<0.0002	<0.0002	<0.0002	0.0008	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0020	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0223
SD009	14/05/2020	0902_SD009_200514	Normal	NSW_0902_PFASOMP	0.0024	0.147	0.0227	0.170	0.0016	0.0041	0.0017	0.0041	0.002	0.0044	0.0032	0.0020	0.0008	0.0006	0.0017	0.0106	0.0054	0.0043	<0.0005	0.0018	0.0016	0.0009	0.0040	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.227
SD009	12/11/2020	0902_SD009_201112	Normal	NSW_0902_PFASOMP	0.0007	0.0822	0.0086	0.0908	0.0007	0.0007	0.0006	0.0016	0.001	0.0011	0.0019	0.0004	<0.0002	0.0003	0.0008	0.0053	0.0030	0.0028	<0.0005	0.0010	0.0012	0.0006	0.0018	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.116
SD009	6/05/2021	0902_SD009_210506	Normal	NSW_0902_PFASOMP	0.0005	0.0712	0.0037	0.0749	<0.0002	<0.0002	0.0007	0.0066	<0.001	0.0004	0.0004	0.0003	0.0005	0.0009	0.0012	0.0010	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0004	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0878
SD009	29/11/2021	0902_QC215_211129	Interlab_D	NSW_0902_PFASOMP	0.0003	0.047	0.0031	0.05	0.0002	0.0002	0.0005	0.0006	<0.0002	0.0004	0.0004	0.0002	0.0002	<0.0005	0.0006	0.001	0.001	<0.005	<0.0001	0.0001	0.0004	0.0003	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	0.057
SD009	29/11/2021	0902_SD009_211129	Normal	NSW_0902_PFASOMP	0.0003	0.0493	0.0032	0.0525	0.0003	0.0003	0.0003	0.0010	<0.001	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0561
SD009	26/05/2022	0902_SD009_220526	Normal	NSW_0902_PFASOMP	0.0005	0.0541	0.0079	0.0620	<0.0002	0.0003	0.0007	0.0010	<0.001	<0.0002	0.0004	<0.0002	0.0005	0.0003	0.0003	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0665
SD009	18/11/2022	0902_SD009_221118	Normal	NSW_0902_PFASOMP	<0.0002	0.0161	0.0018	0.0179	<0.0002	<0.0002	<0.0002	0.0008	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0194
SD011	4/07/2017	0902_QC206_040717	Interlab_D	NSW_0902_PFAS	0.0026	0.38	0.017	0.397	0.0009	0.0013	0.0022	0.0024	0.001	<0.0002	0.0024	<0.0001	0.0011	0.002	0.004	0.011	0.0084	0.009	<0.0001	0.0005	0.0078	0.0024	0.004	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	-
SD011	4/07/2017	0902_SD011_040717	Normal	NSW_0902_PFAS	0.0066	0.722	0.0479	0.770	0.0003	0.0005	0.0068	0.0060	<0.001	<0.0002	0.0057	0.0014	0.0042	0.0041	0.0085	0.0152	0.0078	0.0063	<0.0005	0.0040	0.0463	0.0065	0.0106	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.911
SD011	15/01/2018	0902_SD011_180115	Normal	NSW_0902_PFAS	0.0014	0.178	0.0085	0.186	<0.0002	0.0006	0.0021	0.0022	<0.001	<0.0002	0.0012	0.0006	0.0005	0.0010	0.0016	0.0028	0.0029	0.0076	<0.0005	0.0028	0.0047	0.0007	0.0072	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.226
SD011	27/02/2018	0902_QC221_270218	Interlab_D	NSW_0902_PFAS	0.0005	0.035	0.0060	0.041	0.0005	0.0005	0.0006	0.0005	0.0006	0.0007	0.0011	0.0002	0.0003	<0.0005	<0.0005	0.0007	<0.0005	<0.005	<0.0001	0.0002	0.0003	0.0001	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	-
SD011	27/02/2018	0902_SD011_270218	Normal	NSW_0902_PFAS	0.0003	0.0090	0.0012	0.0102	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0007	0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	0.0030	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0146
SD011	8/11/2019	0902_SD011_191108	Normal	NSW_0902_PFASOMP	<0.0002	0.0027	<0.0002	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0027
SD011	15/05/2020	0902_SD011_200515	Normal	NSW_0902_PFASOMP	<0.0005	0.0217	0.0027	0.0244	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0009	0.0018	<0.0005	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	<0.0012	0.0271
SD011	12/11/2020	0902_SD011_201112	Normal	NSW_0902_PFASOMP	0.0005	0.0664	0.0045	0.0709	<0.0002	0.0002	0.0004	0.0006	<0.001	0.0006	0.0011	0.0003	0.0003	0.0006	0.0011	0.0028	0.0007	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0815
SD011	7/05/2021	0902_SD011_210507	Normal	NSW_0902_PFASOMP	<0.0002	0.0311	0.0021	0.0332	<0.0002	<0.0002	<0.0002	0.0012	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0003	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0352
SD011	29/11/2021	0902_SD011_211129	Normal	NSW_0902_PFASOMP	0.0006	0.117	0.0050	0.122	0.0003	0.0003	0.0006	0.0027	<0.001	0.0004	0.0013	0.0004	0.0008	0.0014	0.0019	0.0025	0.0008	0.0008	<0.0005	<0.0005	<0.0005	<0.0005	0.0007	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.138
SD011	27/05/2022	0902_SD011_220527	Normal	NSW_0902_PFASOMP	0.0004	0.0407	0.0059	0.0466	0.0008	0.0008	0.0005	0.0007	<0.001	0.0003	0.0011	0.0002	<0.0002	<0.0002	0.0003	0.0006	0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0527
SD011	11/11/2022	0902_SD011_221111	Normal	NSW_0902_PFASOMP	0.0004	0.0871	0.0075	0.0946	0.0003	0.0004	0.0006	0.0021	<0.001	<0.0002	0.0008	<0.0002	<0.0002	<0.0002	0.0006	0.0028	0.0010	0.0008	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.105
SD013	3/07/2017	0902_SD013_030717	Normal	NSW_0902_PFAS	0.0006	0.0416	0.0064	0.0480	<0.0002	0.0002	0.0003	0.0005	<0.001	<0.0002	0.0005	0.0003	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0506
SD013	8/11/2019	0902_SD013_191108	Normal	NSW_0902_PFASOMP	<0.0002	0.0135	0.0018	0.0153	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0004	0.0008	0.0014	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0184
SD013	14/05/2020	0902_SD013_200514	Normal	NSW_0902_PFASOMP	0.0002	0.0382	0.0029	0.0411	0.0002	0.0004	0.0002	0.0004	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0428
SD013	14/05/2020	0902_QC209_200514	Interlab_D	NSW_0902_PFASOMP	<0.001	0.054	0.0035	0.0575	<0.001	<0.001	<0.001	<0.001	0.029	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	-
SD013	12/11/2020	0902_SD013_201112	Normal	NSW_0902_PFASOMP	<0.0002	0.0148	0.0025	0.0173	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0173
SD013	6/05/2021	0902_SD013_210506	Normal	NSW_0902_PFASOMP	0.0006	0.0276	0.0022	0.0298	<0.0002	<0.0002	0.0002	0.0003	<0.001	0.0003	0.0006	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0322

Table T10 - Historical Sediment Results (PFAS)

AECOM

						PFAS																												
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR						0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001
Loc. Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
SD013	29/11/2021	0902_SD013_211129	Normal	NSW_0902_PFASOMP		0.0008	0.178	0.0358	0.214	0.0006	0.0011	0.0024	0.0017	<0.001	0.0019	0.0013	0.0003	0.0003	0.0004	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.225
SD013	27/05/2022	0902_SD013_220527	Normal	NSW_0902_PFASOMP		<0.0002	0.0463	0.0030	0.0493	<0.0002	<0.0002	0.0007	0.0005	<0.001	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0507
SD013	18/11/2022	0902_SD013_221118	Normal	NSW_0902_PFASOMP		<0.0002	0.0140	0.0027	0.0167	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0169
SD014	3/07/2017	0902_SD014_030717	Normal	NSW_0902_PFAS		0.0008	0.158	0.0151	0.173	0.0004	0.0007	0.0019	0.0008	<0.001	<0.0002	0.0006	<0.0002	<0.0002	0.0005	0.0011	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0020	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.182
SD014	8/11/2019	0902_SD014_191108	Normal	NSW_0902_PFASOMP		<0.0002	0.0004	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0004
SD014	8/11/2019	0902_QC103_191108	Field_D	NSW_0902_PFASOMP		<0.0002	0.0006	0.0003	0.0009	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0009
SD014	14/05/2020	0902_SD014_200514	Normal	NSW_0902_PFASOMP		<0.0002	0.0247	0.0019	0.0266	<0.0002	<0.0002	<0.0002	<0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	0.0014	0.0011	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0307
SD014	12/11/2020	0902_SD014_201112	Normal	NSW_0902_PFASOMP		<0.0002	0.0136	0.0015	0.0151	0.0005	<0.0002	<0.0002	<0.0002	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0006	0.0011	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0198
SD014	6/04/2021	0902_QC202_210506	Interlab_D	NSW_0902_PFASOMP		<0.01	0.094	0.056	0.15	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	0.014	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	-
SD014	6/05/2021	0902_SD014_210506	Normal	NSW_0902_PFASOMP		0.0032	0.0625	0.0523	0.115	0.0044	0.0054	0.0027	0.0010	<0.001	0.0041	0.0151	0.0014	<0.0002	0.0011	0.0028	0.0060	0.0010	<0.0006	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006	0.163
SD014	25/11/2021	0902_SD014_211125	Normal	NSW_0902_PFASOMP		0.0005	0.0629	0.0064	0.0693	0.0005	0.0004	0.0008	0.0017	<0.001	<0.0002	0.0022	0.0003	<0.0002	0.0009	0.0032	0.0070	0.0012	0.0010	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006	0.0896
SD014	26/05/2022	0902_QC204_220526	Interlab_D	NSW_0902_PFASOMP		<0.0001	0.0059	0.0008	0.0067	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	0.0068
SD014	26/05/2022	0902_SD014_220526	Normal	NSW_0902_PFASOMP		<0.0002	0.0015	0.0003	0.0018	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0018
SD014	11/11/2022	0902_SD014_221111	Normal	NSW_0902_PFASOMP		<0.0002	0.0096	0.0021	0.0117	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	0.0004	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0124
SD015	3/07/2017	0902_SD015_030717	Normal	NSW_0902_PFAS		0.0003	0.0367	0.0033	0.0400	<0.0002	<0.0002	0.0003	0.0005	0.001	<0.0002	0.0002	<0.0002	0.0003	0.0003	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.0006	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0437
SD015	27/02/2018	0902_SD015_270218	Normal	NSW_0902_PFAS		0.0003	0.0179	0.0019	0.0198	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0201
SD015	15/11/2019	0902_SD015_191115	Normal	NSW_0902_PFASOMP		<0.0002	0.0221	0.0016	0.0237	<0.0002	<0.0002	<0.0002	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0243
SD015	15/11/2019	0902_QC106_191115	Field_D	NSW_0902_PFASOMP		<0.0002	0.0153	0.0012	0.0165	<0.0002	<0.0002	<0.0002	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0170
SD015	14/05/2020	0902_SD015_200514	Normal	NSW_0902_PFASOMP		<0.0002	0.0119	0.0006	0.0125	<0.0002	<0.0002	<0.0002	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0128
SD015	12/11/2020	0902_SD015_201112	Normal	NSW_0902_PFASOMP		<0.0002	0.0088	0.0007	0.0095	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0095
SD015	5/05/2021	0902_SD015_210505	Normal	NSW_0902_PFASOMP		<0.0002	0.0048	0.0005	0.0053	<0.0002	<0.0002	<0.0002	0.0009	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0062
SD015	29/11/2021	0902_SD015_211129	Normal	NSW_0902_PFASOMP		<0.0002	0.0016	<0.0002	0.0016	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0016
SD015	30/05/2022	0902_SD015_220530	Normal	NSW_0902_PFASOMP		<0.0002	0.0044	0.0005	0.0049	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0049
SD015	30/05/2022	0902_QC110_220530	Field_D	NSW_0902_PFASOMP		<0.0002	0.0031	0.0005	0.0036	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0039
SD015	10/11/2022	0902_SD015_221110	Normal	NSW_0902_PFASOMP		<0.0002	0.0030	0.0006	0.0036	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0036
SD016	14/11/2009	0902_QC204_191114	Interlab_D	NSW_0902_PFASOMP		<0.001	0.0040	<0.001	0.0040	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005	-
SD016	3/07/2017	0902_SD016_030717	Normal	NSW_0902_PFAS		<0.0002	0.0022	<0.0002	0.0022	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0022
SD016	15/01/2018	0902_SD016_180115	Normal	NSW_0902_PFAS		<0.0002	0.0006	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0006
SD016	27/02/2018	0902_SD016_270218	Normal	NSW_0902_PFAS		<0.0002	0.0027	<0.0002	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0027
SD016	14/11/2019	0902_SD016_191114	Normal	NSW_0902_PFASOMP		<0.0002	0.0005	<0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0005
SD016	14/05/2020	0902_SD016_200514	Normal	NSW_0902_PFASOMP		<0.0002	0.0037	<0.0002	0.0037	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0037
SD016	13/11/2020	0902_SD016_201113	Normal	NSW_0902_PFASOMP		<0.0002	0.0015	<0.0002	0.0015	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0015
SD016	5/05/2021	0902_SD016_210505	Normal	NSW_0902_PFASOMP		0.0005	0.0080	0.0006	0.0086	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0091
SD016	29/11/2021	0902_SD016_211129	Normal	NSW_0902_PFASOMP		<0.0002	0.0027	<0.0002	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0027
SD016	30/05/2022	0902_SD016_220530	Normal	NSW_0902_PFASOMP		<0.0002	0.0009	<0.0002	0.0009	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0009
SD016	10/11/2022	0902_SD016_221110	Normal	NSW_0902_PFASOMP		<0.0002	0.0069	0.0004	0.0073	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0073
SD018	4/07/2017	0902_SD018_040717	Normal	NSW_0902_PFAS		0.0013	0.0235	0.0014	0.0249	<0.0002	<0.0002	0.0002	0.0004	<0.001	0.0005	0.0005	0.0005	0.0011	0.0037	0.0012	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0004	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0350
SD018	27/02/2018	0902_SD018_270218	Normal	NSW_0902_PFAS		0.0004	0.0020	<0.0002	0.0020	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0004	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0030
SD018	25/11/2019	0902_SD018_191125	Normal	NSW_0902_PFASOMP		0.0005	0.0071	0.0004	0.0075	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0006	0.0009	0.0002	0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0103
SD018	25/11/2019	0902_QC110_191125	Field_D	NSW_0902_PFASOMP		0.0005	0.0060	0.0004	0.0064	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0007	0.0011	0.0003	0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0096
SD018	15/05/2020	0902_SD018_200515	Normal	NSW_0902_PFASOMP		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	0.0007	<0.0005	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	<0.0012	0.0015
SD018	13/11/2020	0902_SD018_201113	Normal	NSW_0902_PFASOMP		<0.0002	0.0009	0.0004	0.0013	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0010	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0026
SD018	29/11/2021	0902_SD018_211129	Normal	NSW_0902_PFASOMP		<0.0002	0.0005	<0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0005
SD018	31/05/2022	0902_SD018_220531	Normal	NSW_0902_PFASOMP		<0.0002	0.0004	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0004
SD018	7/11/2022	0902_SD018_221107	Normal	NSW_0902_PFASOMP		<0.0002	0.0022	0.0005	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0027
SD019	4/07/2017	0902_SD019_040717	Normal	NSW_0902_PFAS		<0.0002	0.0027	0.0005	0.0032	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0032
SD019	25/11/2019	0902_SD019_191125	Normal	NSW_0902_PFASOMP		<0.0002	0.0016	<0.0002	0.0016	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0016
SD019	15/05/2020	0902_SD019_200515	Normal	NSW_0902_PFASOMP		<0.0002	0.0014	<0.0002	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0014
SD019	13/11/2020	0902_SD019_201113	Normal	NSW_0902_PFASOMP		<0.0002	0.0014	<0.0002	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0014
SD019	7/05/2021	0902_SD019_210507	Normal	NSW_0902_PFASOMP		0.0002	0.0036	0.0006	0.0042	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0044
SD019	29/11/2021	0902_SD019_211129	Normal	NSW_0902_PFASOMP		<0.0002	0.0056	0.0009	0.0065	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0065
SD019	31/05/2022	0902_SD019_220531	Normal	NSW_0902_PFASOMP		<0.0002	0.0008	<0.0002	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0008

Table T10 - Historical Sediment Results (PFAS)

AECOM

						PFAS																												
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR						0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001
Loc. Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
SD019	7/11/2022	0902_SD019_221107	Normal	NSW_0902_PFASOMP		<0.0002	0.0023	<0.0002	0.0023	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0023
SD020	13/11/2017	0902_SD20_131117	Normal	NSW_0902_PFAS		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD020	25/11/2019	0902_SD020_191125	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD020	15/05/2020	0902_SD020_200515	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD020	13/11/2020	0902_SD020_201113	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD020	7/05/2021	0902_SD020_210507	Normal	NSW_0902_PFASOMP		<0.0002	0.0055	<0.0002	0.0055	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0055
SD020	29/11/2021	0902_SD020_211129	Normal	NSW_0902_PFASOMP		<0.0002	0.0047	<0.0002	0.0047	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0047
SD020	31/05/2022	0902_SD020_220531	Normal	NSW_0902_PFASOMP		<0.0002	0.0007	<0.0002	0.0007	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0007
SD020	7/11/2022	0902_SD020_221107	Normal	NSW_0902_PFASOMP		<0.0002	0.0007	<0.0002	0.0007	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0007
SD022	13/11/2017	0902_SD22_131117	Normal	NSW_0902_PFAS		<0.0002	0.0014	<0.0002	0.0014	<0.0002	<0.0002	<0.0002	0.0058	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0003	<0.0005	<0.0002	<0.0005	0.0024	<0.0005	0.0101
SD022	15/11/2019	0902_QC108_191115	Field_D	NSW_0902_PFASOMP		<0.0002	0.0003	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003
SD022	15/11/2019	0902_SD022_191115	Normal	NSW_0902_PFASOMP		<0.0002	0.0004	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0004
SD022	15/05/2020	0902_SD022_200515	Normal	NSW_0902_PFASOMP		<0.0005	0.0037	<0.0005	0.0037	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0017	0.0014	<0.0005	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	<0.0012	0.0068
SD022	13/11/2020	0902_SD022_201113	Normal	NSW_0902_PFASOMP		0.0003	0.0047	0.0004	0.0051	<0.0002	<0.0002	<0.0002	0.0068	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0008	0.0003	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	0.0006	<0.0005	0.0144
SD022	5/05/2021	0902_SD022_210505	Normal	NSW_0902_PFASOMP		0.0002	0.0036	0.0003	0.0039	<0.0002	<0.0002	<0.0002	0.0032	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	0.0012	<0.0005	0.0095
SD022	29/11/2021	0902_SD022_211129	Normal	NSW_0902_PFASOMP		<0.0002	0.0027	0.0003	0.0030	<0.0002	<0.0002	<0.0002	0.0012	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0045
SD022	30/05/2022	0902_SD022_220530	Normal	NSW_0902_PFASOMP		<0.0002	0.0006	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0006
SD022	3/11/2022	0902_QC202_221103	Interlab_D	NSW_0902_PFASOMP		<0.0001	0.0068	0.0009	0.0077	0.0001	0.0001	<0.0001	0.0053	<0.0002	<0.0002	0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	0.001	<0.001	0.0003	<0.001	<0.001	0.0021	<0.005	0.017
SD022	3/11/2022	0902_SD022_221103	Normal	NSW_0902_PFASOMP		<0.0002	0.0049	0.0007	0.0056	<0.0002	<0.0002	<0.0002	0.0011	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0075
SD022	3/11/2022	0902_QC102_221103	Field_D	NSW_0902_PFASOMP		<0.0002	0.0100	0.0016	0.0116	0.0002	<0.0002	<0.0002	0.0035	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0013	<0.0005	0.0006	<0.0005	<0.0005	0.0033	<0.0005	0.0211
SD023	13/11/2017	0902_SD23_131117	Normal	NSW_0902_PFAS		<0.0002	0.0158	0.0008	0.0166	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0002	0.0003	<0.0002	<0.0002	0.0002	0.0005	0.0006	<0.0002	<0.0005	<0.0005	<0.0005	0.0010	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0194
SD023	13/11/2017	0902_QC180_131117	Field_D	NSW_0902_PFAS		<0.0002	0.0126	0.0008	0.0134	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0003	0.0004	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0145
SD023	15/01/2018	0902_SD023_180115	Normal	NSW_0902_PFAS		<0.0002	0.0004	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0004
SD023	15/01/2018	0902_QC111_180115	Field_D	NSW_0902_PFAS		<0.0002	0.0006	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0006
SD023	11/11/2019	0902_SD023_191111	Normal	NSW_0902_PFASOMP		<0.0002	0.0075	0.0006	0.0081	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0003	0.0003	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0089
SD023	15/05/2020	0902_SD023_200515	Normal	NSW_0902_PFASOMP		0.0005	0.0312	0.0008	0.0320	<0.0002	<0.0002	<0.0002	0.0003	0.002	<0.0002	0.0004	<0.0002	0.0004	0.0004	0.0004	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0004	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0373
SD023	13/11/2020	0902_SD023_201113	Normal	NSW_0902_PFASOMP		<0.0002	0.0019	0.0002	0.0021	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0021
SD023	25/11/2021	0902_SD023_211125	Normal	NSW_0902_PFASOMP		<0.0002	0.0094	0.0004	0.0098	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0098
SD023	25/11/2021	0902_QC109_211125	Field_D	NSW_0902_PFASOMP		<0.0002	0.0087	0.0003	0.0090	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0090
SD023	31/05/2022	0902_SD023_220531	Normal	NSW_0902_PFASOMP		<0.0002	0.0003	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003
SD023	7/11/2022	0902_SD023_221107	Normal	NSW_0902_PFASOMP		<0.0002	0.0023	0.0005	0.0028	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0028
SD023	7/11/2022	0902_QC110_221107	Field_D	NSW_0902_PFASOMP		<0.0002	0.0020	0.0004	0.0024	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0024
SD024	13/11/2017	0902_SD24_131117	Normal	NSW_0902_PFAS		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD024	15/11/2019	0902_SD024_191115	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD024	14/05/2020	0902_SD024_200514	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD024	12/11/2020	0902_SD024_201112	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD024	5/05/2021	0902_SD024_210505	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD024	26/11/2021	0902_SD024_211126	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD024	31/05/2022	0902_SD024_220531	Normal	NSW_0902_PFASOMP		<0.0002	0.0009	<0.0002	0.0009	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0012
SD024	3/11/2022	0902_SD024_221103	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	17/11/2013	0902_QC281_131117	Interlab_D	NSW_0902_PFAS		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	-
SD030	13/11/2017	0902_SD30_131117	Normal	NSW_0902_PFAS		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	18/01/2018	0902_SD030_180118	Normal	NSW_0902_PFAS		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	27/02/2018	0902_SD030_270218	Normal	NSW_0902_PFAS		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	15/11/2019	0902_SD030_191115	Normal	NSW_0902_PFASOMP		<0.0002	0.0003	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003
SD030	15/05/2020	0902_SD030_200515	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	13/11/2020	0902_SD030_201113	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	7/05/2021	0902_SD030_210507	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	29/11/2021	0902_SD030_211129	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	31/05/2022	0902_SD030_220531	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD030	7/11/2022	0902_QC210_221107	Interlab_D	NSW_0902_PFASOMP		<0.0001	0.0025	0.0003	0.0029	<0.0001	<0.0001	<0.0001	0.0004	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005	0.0032
SD030	7/11/2022	0902_SD030_221107	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002

Table T10 - Historical Sediment Results (PFAS)

					PFAS																																		
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	Sum of PFAS
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001	0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005	0.0001
Loc. Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																	
SD035	16/11/2017	0902_SD035_161117	Normal	NSW_0902_PFAS	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD035	15/11/2019	0902_SD035_191115	Normal	NSW_0902_PFASOMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002
SD035	14/05/2020	0902_SD035_200514	Normal	NSW_0902_PFASOMP	<0.0002	0.0012	<0.0002	0.0012	<0.0002	<0.0002	<0.0002	<0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0022
SD035	13/11/2020	0902_SD035_201113	Normal	NSW_0902_PFASOMP	<0.0002	0.0003	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0003
SD035	6/05/2021	0902_SD035_210506	Normal	NSW_0902_PFASOMP	<0.0002	0.0021	<0.0002	0.0021	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0021
SD035	25/11/2021	0902_SD035_211125	Normal	NSW_0902_PFASOMP	<0.0002	0.0018	0.0004	0.0022	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0022
SD035	30/05/2022	0902_SD035_220530	Normal	NSW_0902_PFASOMP	<0.0002	0.0015	0.0004	0.0019	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0019
SD035	3/11/2022	0902_SD035_221103	Normal	NSW_0902_PFASOMP	<0.0002	0.0006	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005	0.0006

Notes:

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Appendix C

Calibration Certificates

WAMSCIENTIFIC
Your water and air monitoring equipment specialists

Certificate of Service and Calibration

Water Quality Meter

YSI Professional Plus

Company Name	WAM Scientific
Office Address	26 Bungarra Crescent, Chipping Norton NSW 2170
Phone Number	+61 405 241 484
Contact Name	William Pak
Instrument	YSI Professional Plus Water Quality Meter w/ 1m Quatro Cable
Serial Number	21A102653
Client Name	Jessica Roy (AECOM Australia)
Project Number	60612562_5.1
Comments	-

Instrument Check

Item	Test	Test Passed	Comments
2 x Alkaline C-size Batteries	Klein Tools MM300 Multimeter	✓	Both batteries reading above 2.9V
Battery Saver Function	Operation	✓	Automatically turns off after 60 minutes if idle
Unit Display	Operation	✓	Screen visible, no damage
Keypad	Operation	✓	Responsive, no damage
Connection Port and Cable	Condition/Check	✓	Clean, no damage
Monitor Housing	Condition/Check	✓	No damage
Firmware	Version	✓	4.0.0
pH Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
pH millivolts for pH 7.00	Calibration	✓	pH 7.00 calibration range between 0 mV ± 50 mV
pH millivolts for pH 4.00	Calibration	✓	pH 4 mV range +165 to +180 from 7 buffer mV value
pH slope	Calibration	✓	Range between 55 to 60 mV/pH (ideal value 59 mV)
Response time < 90 seconds	Calibration	✓	Responds to correct value within 90 seconds
ORP Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
ORP Reading	Calibration	✓	Within ± 80 mV of reference Zobell Reading
Response time < 90 seconds	Calibration	✓	Responds to correct value within 90 seconds
Conductivity/Temp Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
Conductivity Cell	Calibration	✓	Conductivity cell constant 5.0 ± 1.0 in GLP file
Clean Sensor Readings	Calibration	✓	Clean sensor reads less than 3 uS/cm in dry air
Dissolved Oxygen Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
DO Cap	Condition/Calibration	✓	1.25 mil PE membrane (yellow membrane)
DO Sensor in Use	Condition	✓	Polarographic DO sensor
DO Sensor Value	Calibration	✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA

Instrument Readings

Parameter	Standard Used	Reference No.	Calibration Value	Observed	Actual	Units
Temperature	Centre 370 Thermometer	Room Temp.	23.6	23.3	23.6	°C
pH	pH 4.00	386466	4.01	3.91	4.01	pH
pH	pH 7.00	387329	7.00	6.92	7.00	pH
Conductivity	2760 µs/cm at 25°C	388521	2760	2765	2760	µs/cm
ORP (Ref. check only)	Zobell A & B	380835/382785	233.8	235.6	233.8	mV
Zero Dissolved O_2	$NaSO_3$ in Distilled H_2O	389912	0.0	0.2	0.0	%
100% Dissolved O_2	100% Air Saturated H_2O	Fresh Air	100.0	97.4	100.0	%

Declaration

WAM Scientific certifies that the above instrument was successfully tested according to manufacturer's standards and all necessary checks were conducted to ensure the instrument was fully operational prior to dispatch. The calibration data supplied was obtained in accordance with manufacturer's specifications using solutions of known values.

Calibrated By	William Pak
Calibration Date	31/10/2022
Calibration Due	31/04/2023

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WAMSCIENTIFIC
Your water and air monitoring equipment specialists

Certificate of Service and Calibration

Interface Meter

Heron H.Oil

Company Name	WAM Scientific
Office Address	26 Bungarra Crescent, Chipping Norton NSW 2170
Phone Number	+61 405 241 484
Contact Name	William Pak
Instrument	Heron H.Oil Interface Meter (30m)
Serial Number	01-7967
Client Name	Jessica Roy (AECOM Australia)
Project Number	60612562_5.1

Instrument Check			
Item	Test	Test Passed	Comments
9V Battery	Klein Tools MM300 Multimeter	✓	Battery voltage reading above 7.9V
Battery Box	Check	✓	No damage
Face and Back Plates	Check	✓	No damage
Thumb Screws	Check	✓	Rubber ends intact
Tape Hangar/Protector	Check	✓	No damage
On/Off Button	Operation	✓	Button is functional
Buzzer	Operation	✓	Intermittent tone in H_2O, solid tone in product
LED Signal Light	Operation	✓	LED light functional – green and red
Probe	Operation/Check	✓	Decontaminated, cleaned and tested
Tape	Condition/Check	✓	Decontaminated and cleaned, no damage
Connection	Check	✓	Probe and link connected correctly and tightly
PCB	Operation	✓	Unit is fully functional
Electronics Panel	Orientation	✓	Correctly aligned

Instrument Readings		
Product	Buzzer	LED Light
H_2O	Intermittent	Blinking – Red
Petroleum	Solid	Steady – Red

Declaration
WAM Scientific certifies that the above instrument was successfully tested according to manufacturer's standards and all necessary checks were conducted to ensure the instrument was fully operational prior to dispatch. The interface meter was decontaminated, cleaned and tested with a mixture of tap water and petrol, shielded from ambient light.

Checked By	William Pak
Calibration Date	31/10/2022
Calibration Due	31/04/2023

WAMSCIENTIFIC
Your water and air monitoring equipment specialists

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AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	RICHMOND	**Client:**	Defence
PM Name:	G. Tredinnick	**Fieldwork Staff Name:**	J. Rod

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM SCIENTIFIC
Make and Model:	YSI PROFESSIONAL PLUS
Serial Number:	21A102653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	2-11-2022 → CALIBRATION NOT REQUIRED - BUMP TEST OK.				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	2-11-2022 8:15				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4.00	7.00	2496	0.0	—
Bump Test Reading:	4.10	7.07	2410	0.0	—
Bump Test Temperature:	20.6	20.6	20.0	20.0	—

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

2-11-2022

Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	RICHMOND	**Client:**	Defence
PM Name:	G. Tredinnick	**Fieldwork Staff Name:**	JESS ROY & JACK RAWSTHORNE

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM SCIENTIFIC
Make and Model:	YSI PROFESSIONAL PLUS
Serial Number:	21A102653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	3-11-2022				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4.0	7.0	1969	0.0	—
Bump Test Reading:	4.01	7.01	2113	0.0	—
Bump Test Temperature:	9.4	9.5	9.2	9.4	—

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

NO NEED TO CALIBRATE BUMP TEST OF.

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature	Date
	3-11-2022

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	Defence
PM Name:	G. Tredinnick	**Fieldwork Staff Name:**	

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM
Make and Model:	YSI Pro plus
Serial Number:	21A102653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:			2391		
Calibration Reading:			2391		
Calibration Temperature:			16.0		

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4.00	7.00	2391	0.0	–
Bump Test Reading:	4.02	7.00	2970	0.0	–
Bump Test Temperature:	18.0	18.1	18.1	17.9	–

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature	Date
	7/11/23

Distribution: Project Central File

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	Richmond RAAF	**Client:**	Defence
PM Name:	G. Tredinnick	**Fieldwork Staff Name:**	J. Rawthorne, N. Tomlin

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM Scientific
Make and Model:	21A100729 YSI Pro plus
Serial Number:	✓

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:			2338		
Calibration Reading:			2338		
Calibration Temperature:			16.9		

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	8.11.22 7:30am				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4.00	7.00	2338	0.0	
Bump Test Reading:	4.02	6.98	2402	0.0	
Bump Test Temperature:	16.9 JR	16.8	16.8	17.0	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

8.11.22
Date

Distribution: Project Central File

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	Defence
PM Name:	G. Tredinnick	**Fieldwork Staff Name:**	NT, JR

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM
Make and Model:	YSI PRO PLUS
Serial Number:	21A102653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	10/11/2022 9:00 am				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:			2496		
Calibration Reading:			2496		
Calibration Temperature:			20.0		

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	10/11/2022 9:00 am				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	~~ppm~~ mg/L	ppm
Calibration Standard Concentration:	4	7	2496	0	
Bump Test Reading:	4.04	6.97	2640	0.03	
Bump Test Temperature:	20.5	20.3	20.0	20.6	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

10/11/2022
Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	Defence
PM Name:	G. Tredinnick	**Fieldwork Staff Name:**	NT, JR

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM
Make and Model:	YSI PRO PLUS
Serial Number:	21A102653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	11/11/2022 6:30 am				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	~~ppm~~ mg/L	ppm
Calibration Standard Concentration:	4	7	2286	0	
Bump Test Reading:	4.04	6.97	2280	0.03	
Bump Test Temperature:	15.4	15.4	16.2	16.2	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

11/11/2022
Date

Distribution: Project Central File

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	Defence
PM Name:	G. Tredinnick	**Fieldwork Staff Name:**	NT

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM
Make and Model:	YSI PRO PLUS
Serial Number:	21A102653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	18.11.22 8:30am				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:			2233		
Calibration Reading:			2233		
Calibration Temperature:			15.0		

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	18.11.22 8:30 am				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	~~ppm~~ mg/L	ppm
Calibration Standard Concentration:	4	7	2233	0	
Bump Test Reading:	4.06	6.95	2203	0.04	
Bump Test Temperature:	15.0	14.9	15.0	15.2	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

18.11.22

Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	Defence
PM Name:	G. Tredinnick	**Fieldwork Staff Name:**	N. Tomlin

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	InfAM
Make and Model:	YSI PRO PLUS
Serial Number:	

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	21/11/22 8:30am				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	21/11/22 8:30am				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units.	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4	7	2469	0	
Bump Test Reading:	3.9	7.2	2460	0.3	
Bump Test Temperature:	20.0	19.9	20.1	20.2	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

N. Tomlin — **Fieldwork Staff Signature**

21/11/22 — **Date**

Distribution: Project Central File

Appendix D

Analytical Data Validation

DATA VALIDATION REPORT

Project number:	60612562	Validation by:	[redacted]	Date:	13/01/2023
Client:	Department of Defence	Data verified by:		Date:	10/02/2022
Site:	RAAF Base Richmond	Project Manager:			
Matrix type:	Groundwater, Surface Water, and Sediment				
Primary samples:	80 Groundwater samples, 20 Surface Water samples, 20 Sediment samples				
Laboratory:	Primary: ALS, Secondary: Envirolab				
Lab reference:	ES2239683, ES2240328, ES2240927, ES2241892 and ES2242128 (ALS), 310103 (Envirolab)				

Key Issues:	No QA/QC issues were identified in the field or laboratory datasets that could have a material implication to decision-making on the project.

Field Quality Assurance and Quality Control

Field DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2022).
Sampling personnel	Sampling was conducted by Jessica Roy, Jack Rawsthorne and Nicola Tomlin between 2/11/2022 and 21/11/2022. Field personnel were both suitably qualified and experienced AECOM Environmental Scientists and Engineers.
Sampling Methodology	All water and sediment samples were collected in accordance with the methodology outlined in the SAQP (AECOM, 2022). After each sample was collected, reusable equipment was decontaminated using Liquinox and potable water, and the consumables (nitrile gloves, HydraSleeve™ materials and/or bailers) were disposed of in waste bins.
Chain of Custody (COC)	All samples collected were reported on the Chain of Custody documents (COC) and subsequent email amendments and analysed for requested analytes.
Rinsate Blank	Rinsate blank samples were collected at a frequency of 1 per day of sampling where equipment was re-used and decontaminated between sample points (for a total of 8 rinsate blank samples collected). Rinsate blank samples were either collected from the final rinse of the interface probe or sampling trowel following decontamination, using laboratory-supplied de-ionised water.
Frequency of field QC	Field duplicates (intra-laboratory duplicates) and triplicates (inter-laboratory duplicates) were collected at a frequency slightly greater than one in ten primary samples (10%), exceeding the DQI. In total: • 11 water field duplicates and 11 water field triplicates were collected (11%) for 100 primary water samples (26+43+39+9+2) • 3 sediment field duplicates and 3 sediment field triplicates were collected (15%) for 20 primary sediment samples.
Handling and preservation	All samples were received by the primary laboratory in appropriate containers, with ice present, within the recommended temperature range (<6°C) with the exception of the following: • Temperature: ES2241892 (8.4°C) and ES2242128 (6.6°C) • Sample container non-compliance: 0902_SW024_221103 and 0902_QC306_221118 were received in "Clear Plastic Bottle Natural" instead of "Clear Plastic Bottle – Nitric Acid; Unfiltered" for metals analysis. All samples were received by the secondary laboratory in appropriate containers, with ice present, however, the sample receipt temperature was recorded at 12°C, outside the recommended temperature range.

	Given that the laboratories reported the cooling media was ice and that the analytical groups tested are of non-volatile nature, AECOM considers that the temperature anomalies were not significant. With respect to the sample container non-compliance, it is noted that sample 0902_QC306_221118 was incorrectly scheduled for metals analysis, therefore the non-compliance is not considered to be significant. Regarding the sampling non-conformance for sample 0902_SW024_221103, it was noted that this was the result of the field team not having sufficient nitric-acid preserved bottles on that day of sampling. Given that metals are not a primary CoPC for this program, and the sample was extracted and analysed within 48 hrs of collection, AECOM does not consider this non-conformance to impact upon meeting the objectives of the sampling event.
Calibration of equipment	Measurements of water geochemical parameters were undertaken using YSI Professional Plus water quality meters, which were calibrated by the supplier prior to use, in accordance with the manufacturer's instructions and bump tested daily by the field personnel. Measurements of depth to groundwater were undertaken using interface probes, which were serviced by the supplier prior to use. All equipment calibration and service certificates are presented in Appendix C.
Laboratory QA/QC	
Laboratory DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2022).
Tests requested/reported	All samples were analysed for per- and polyfluoroalkyl substances (PFAS) extended suite, with 7 primary groundwater samples and 10 primary surface water samples analysed for nutrients (ammonia, nitrate, nitrite and phosphorus) and metals (aluminium, bromine, iron, manganese). All primary sediment samples were analysed only for the PFAS extended suite. All sample requests for analysis are reported on the Chain of Custody (COC).
Holding time compliance	All samples were extracted and analysed by the laboratory within the recommended holding times.
Laboratory accreditation	The primary laboratory analysis was conducted by ALS Environmental Pty Ltd (Sydney) a National Association of Testing Authorities (NATA) accredited laboratory (Accreditation No. 825). The secondary samples were analysed at Envirolab Services, also a NATA accredited laboratory (accreditation number 2901).
Frequency of laboratory QC	The primary laboratory ALS reported a sufficient frequency of quality control samples to assess whether the results have been reported with acceptable accuracy and precision, with the exception of: Laboratory Duplicates • ES2240328: PFAS by LCMSMS: Actual Rate (%) 6.90, Expected Rate (%) 10.00 Matrix Spikes • ES2240328: PFAS by LCMSMS: Actual Rate (%) 3.45, Expected Rate (%) 5.00 The precision and accuracy of the data can be assessed as acceptable based on method blanks, laboratory control spike and surrogate spike recoveries, which were reported at the required frequencies and within control limits, and the reported laboratory duplicates and matrix spikes which were within control limits.

Method Blank	All method blank concentrations were reported <LOR (limit of reporting) for the analytes tested, meeting the project requirements. This is presented in the Quality Control Reports for both laboratories.
Laboratory duplicate RPDs	The reported laboratory duplicate's Relative Percentage Differences (RPDs) were within laboratory control limits. The laboratory duplicate RPDs are presented in the Quality Control Reports for the primary laboratory.
LCS recovery	Laboratory control spike (LCS) recoveries were within control limits. This is presented in the Quality Control Reports for both laboratories.
Matrix spike recovery	Matrix spike (MS) recoveries were within control limits with the exception of: Non-determined MS recoveries • ES2239683: Chloride, 0902_MW009_221102— • ES2239683: Ammonia as N, Anonymous • ES2239683: Total Kjeldahl Nitrogen as N, Anonymous • ES2239683: Total Phosphorous as P, Anonymous • ES2240927: Perfluorooctane sulfonic acid (PFOS), 0902_SD005_221111— • ES2240927: Sulfate as SO4 Turbidimetric, Anonymous • ES2241892: Perfluorohexane sulfonic acid (PFHxS), 0902_MW013_221118 These non-determinations were due to background levels being greater than or equal to four times spike levels, which do not reflect method bias or affect data interpretation. Additionally, it is noted that some of these non-determinations were recorded for non-AECOM samples.
Surrogate spike recovery	The reported surrogate spike recoveries were within laboratory control limits.
QA/QC Data Evaluation	
Comparison of Field Observations and Laboratory Results	No anomalies between field observations and analytical results were noted.
Anomalous data / Repeat Analysis	Following the reporting of PFAS concentrations which were outside historical ranges at a number of locations (MW051, MW053, MW072, MW079, MW106 and SD022), the primary laboratory was requested to confirm the results, where necessary by re-analysis. The laboratory confirmed there was no carry-over or dilution error on samples for MW053, MW072, MW079, MW106 and SD022. Repeat analysis was performed on the sample for MW051 and the original reported concentrations were confirmed.
Data transcription	A check of the laboratory results identified no anomalies within the electronic data, the laboratory reports, and the tables generated by AECOM.
Limits of reporting	Laboratory LORs were sufficiently low to enable assessment against adopted guideline criteria.
Rinsate Blank sample results	The concentrations of PFAS in the Rinsate Blank samples (Table D3) were below the limit of reporting (LOR). Two non-COPCs in rinsate blank 0902_QC306_221118, for Sulfate as SO4 Turbidimetric (2 mg/L) and Total Anions (0.04 mg/L) were detected. These detections are largely considered unlikely to present a significant impact on the validity of the data as the rinsate blank was collected from an interface probe on 18 November 2022 and incorrectly scheduled for additional analysis (anion/cations,

select nutrients and metals). The detections are likely a relic of the deionisation or distillation process used to produce the rinsate water.

Furthermore, the detections of Sulfate and Anions in the rinsate blank have no repercussions on the interpretation of the analytical result for the monitoring wells. It is noted that a surface water location was sampled on the same day and scheduled for additional analysis, however, the concentration of Sulfate and Anions are within the same order of magnitude or within historical ranges in the samples analysed.

Intra/Inter-laboratory duplicate RPDs for Field Duplicates / Triplicates

Field duplicates (intra-laboratory duplicates) RPDs for field duplicates (intra-laboratory duplicates) and triplicates (inter-laboratory duplicates) were reported within acceptable limits (≤30%, or ≤50% for results 10-20 x LOR, or No Limit for results <10 x LOR), with the exception of:

<u>Intra-laboratory duplicates (Field Duplicates) RPDs</u>

0902_SW022/QC104
- Ionic Balance: 62%

0902_MW060/QC107
- Perfluorooctane sulfonic acid (PFOS): 49%

0902_MW074/QC111
- Perfluoroheptane sulfonic acid (PFHpS):37%

0902_SW008/QC113
- Ionic Balance: 78%

0902_SD022/QC102
- Perfluorooctane sulfonic acid (PFOS): 68%
- Perfluorodecane sulfonic acid (PFDS): 104%

<u>Inter-laboratory duplicates (Field Triplicates) RPDs</u>

0902_MW022/QC211
- Perfluorooctane sulfonic acid (PFOS): 31%
- Perfluorohexanoic acid (PFHxA): 33%
- Ionic Balance: 41%

0902_MW024/QC201
- Perfluorooctane sulfonic acid (PFOS): 108%
- Perfluorohexane sulfonic acid (PFHxS): 44%
- Perfluoropentane sulfonic acid (PFPeS): 62%
- Perfluorobutane sulfonic acid (PFBS): 67%

0902_MW106/QC213
- Perfluorooctane sulfonic acid (PFOS): 39%

0902_MW059/QC205
- Perfluorohexanoic acid (PFHxA): 37%

0902_MW060/QC207
- Perfluorooctane sulfonic acid (PFOS): 49%

0902_SD022/QC202
- Perfluorooctane sulfonic acid (PFOS): 32%
- Perfluorodecane sulfonic acid (PFDS): 131%

0902_SD001/QC206

- Perfluorooctanoic Acid (PFOA): 58%
- Perfluorohexane sulfonic acid (PFHxS): 104%
- 6:2 Fluorotelomer sulfonic acid (6:2 FTS): 67%
- 10:2 Fluorotelomer sulfonic acid (10:2 FTS): 34%
- Perfluoropentane sulfonic acid (PFPeS): 72%
- Perfluorohexanoic acid (PFHxA): 45%
- Perfluoroheptane sulfonic acid (PFHpS): 64%
- Perfluoroheptanoic acid (PFHpA): 70%
- Perfluorooctane sulfonamide (FOSA): 32%

The elevated RPDs for groundwater duplicate pairs were generally marginally above acceptable limits and were within the same order of magnitude. Additionally, all concentrations with the elevated RDPs, are reported either well above or well below the adopted guideline criteria or have no applicable guideline criteria. Therefore, AECOM considers that these are not significant to impact the interpretation of results.

Elevated RPDs are common in sediment samples due to their heterogeneous nature of the sediment sampled, and therefore are considered acceptable.

Where required for quantitative purposes, the highest concentrations from the primary and duplicate pairs will be used in the assessment.

Overall Assessment

Data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

Attached:

Table D1 – Water RPDs

Table D2 – Sediment RPDs

Table D3 – Rinsate Blank Results

Table D1 - Water Duplicate RPDs

			Lab Report Number	ES2239683	ES2239683		ES2239683	ES2239683		ES2239683	ES2239683	
			Field ID	0902_MW008_221102	0902_QC100_221102	**RPD**	0902_MW024_221102	0902_QC101_221102	**RPD**	0902_MW081_221103	0902_QC103_221103	**RPD**
			Sampled Date/Time	2/11/2022 9:14	2/11/2022 9:14		2/11/2022 16:10	2/11/2022 16:10		3/11/2022 9:40	3/11/2022 9:40	
			Sample Type	Primary	Intralab Duplicate		Primary	Intralab Duplicate		Primary	Intralab Duplicate	
Chem_Group	**ChemName**	**Units**	**LOR**									
Per- and Poly-fluoroalkyl Substances	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	<0.01	<0.01	nc	<0.01	<0.01	nc	<0.01	<0.01	nc
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.37	0.39	5	0.3	0.23	26	0.07	0.05	33
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.31	0.4	25	0.25	0.31	21	0.04	0.03	29
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 : 0.01 (Interlab)	0.09	0.1	11	0.1	0.14	33	<0.02	<0.02	nc
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	0.02	0.02	0	0.04	0.04	0	<0.02	<0.02	nc
	Perfluorononanoic acid (PFNA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 : 0.01 (Interlab)	0.09	0.08	12	0.09	0.11	20	<0.02	<0.02	nc
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 : 0.05 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	0.09	0.11	20	0.1	0.15	40	<0.02	<0.02	nc
	Perfluorobutanoic acid (PFBA)	µg/L	0.1 : 0.02 (Interlab)	<0.1	<0.1	nc	<0.1	<0.1	nc	<0.1	<0.1	nc
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Sum of PFHxS and PFOS	µg/L	0.01	0.68	0.79	15	0.55	0.54	2	0.11	0.08	32
	Sum of PFAS	µg/L	0.01	0.97	1.1	13	0.88	0.98	11	0.11	0.08	32
	Sum of PFAS (WA DER List)	µg/L	0.01	0.88	1	13	0.78	0.84	7	0.11	0.08	32
Metals	Aluminium	mg/l	0.01							<0.01	<0.01	nc
	Calcium (Filtered)	mg/l	1 : 0.5 (Interlab)							28	28	0
	Iron	mg/l	0.05							0.29	0.3	3
	Magnesium (Filtered)	mg/l	1 : 0.5 (Interlab)							23	23	0
	Manganese	mg/l	0.001							1.83	1.83	0
	Potassium (Filtered)	mg/l	1 : 0.5 (Interlab)							<1	<1	nc
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/l	1 : 5 (Interlab)							286	284	1
	Alkalinity (Carbonate as CaCO3)	mg/l	1 : 5 (Interlab)							<1	<1	nc
	Nitrite + Nitrate as N	mg/l	0.01							2.31	2.4	4
	Phosphate total (as P)	mg/l	0.01							0.2	0.17	16
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/l	1							64	51	23
	Alkalinity (Hydroxide as CaCO3)	mg/l	1 : 5 (Interlab)							<1	<1	nc
	Alkalinity (total) as CaCO3	mg/l	1 : 5 (Interlab)							286	284	1
	Ammonia as N	µg/l	10							30	20	40
	Anions Total	meq/L	0.01							12.7	12.4	2
	Bromine	µg/l	100							900	1000	11
	Cations Total	meq/L	0.01							12.5	12.6	1
	Chloride	mg/l	1							201	201	0
	Ionic Balance	%	0.01							0.81	0.6	30
	Kjeldahl Nitrogen Total	mg/l	0.1							0.9	0.6	40
	Nitrate (as N)	mg/l	0.01							2.22	2.32	4
	Nitrite (as N)	mg/l	0.01							0.09	0.08	12
	Nitrogen (Total)	mg/l	0.1							3.2	3	6
	Sodium (Filtered)	mg/l	1 : 0.5 (Interlab)							212	213	0

Notes
LOR = Limit of Reporting
µg/L = micrograms per litre
mg/L = milligrams per litre
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

	Lab Report Number	ES2239683	ES2239683		ES2240328	ES2240328		ES2240328	ES2240328	
	Field ID	0902_SW022_221103	0902_QC104_221103	**RPD**	0902_MW056_221107	0902_QC105_221107	**RPD**	0902_MW060_221107	0902_QC107_221107	**RPD**
	Sampled Date/Time	3/11/2022 10:20	3/11/2022 10:20		7/11/2022 8:51	7/11/2022 8:51		7/11/2022 9:55	7/11/2022 9:55	
	Sample Type	Primary	Intralab Duplicate		Primary	Intralab Duplicate		Primary	Intralab Duplicate	
Chem_Group	**ChemName**	**Units**	**LOR**									
Per- and Poly-fluoroalkyl Substances	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	0.01	0.01	0	<0.01	<0.01	nc	0.04	0.04	0
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.05	0.04	22	0.02	0.01	67	**0.23**	**0.14**	**49**
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.2	0.19	5	0.01	<0.01	nc	0.18	0.16	12
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 : 0.01 (Interlab)	0.04	0.04	0	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	0.03	0.03	0
	Perfluorononanoic acid (PFNA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 : 0.01 (Interlab)	0.08	0.07	13	<0.02	<0.02	nc	0.07	0.06	15
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 : 0.05 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	0.04	0.04	0	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorobutanoic acid (PFBA)	µg/L	0.1 : 0.02 (Interlab)	<0.1	<0.1	nc	<0.1	<0.1	nc	<0.1	<0.1	nc
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Sum of PFHxS and PFOS	µg/L	0.01	0.25	0.23	8	0.03	0.01	100	**0.41**	**0.3**	**31**
	Sum of PFAS	µg/L	0.01	0.42	0.39	7	0.03	0.01	100	0.55	0.43	24
	Sum of PFAS (WA DER List)	µg/L	0.01	0.38	0.35	8	0.03	0.01	100	0.55	0.43	24
Metals	Aluminium	mg/l	0.01	0.09	0.08	12						
	Calcium (Filtered)	mg/l	1 : 0.5 (Interlab)	28	28	0						
	Iron	mg/l	0.05	0.37	0.34	8						
	Magnesium (Filtered)	mg/l	1 : 0.5 (Interlab)	14	14	0						
	Manganese	mg/l	0.001	0.512	0.487	5						
	Potassium (Filtered)	mg/l	1 : 0.5 (Interlab)	6	6	0						
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/l	1 : 5 (Interlab)	150	146	3						
	Alkalinity (Carbonate as CaCO3)	mg/l	1 : 5 (Interlab)	<1	<1	nc						
	Nitrite + Nitrate as N	mg/l	0.01	1.8	1.8	0						
	Phosphate total (as P)	mg/l	0.01	0.14	0.17	19						
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/l	1	30	30	0						
	Alkalinity (Hydroxide as CaCO3)	mg/l	1 : 5 (Interlab)	<1	<1	nc						
	Alkalinity (total) as CaCO3	mg/l	1 : 5 (Interlab)	150	146	3						
	Ammonia as N	µg/l	10	160	170	6						
	Anions Total	meq/L	0.01	6.53	6.42	2						
	Bromine	µg/l	100	600	500	18						
	Cations Total	meq/L	0.01	6.57	6.44	2						
	Chloride	mg/l	1	103	102	1						
	Ionic Balance	%	0.01	**0.36**	**0.19**	**62**						
	Kjeldahl Nitrogen Total	mg/l	0.1	0.9	1	11						
	Nitrate (as N)	mg/l	0.01	1.76	1.76	0						
	Nitrite (as N)	mg/l	0.01	0.04	0.04	0						
	Nitrogen (Total)	mg/l	0.1	2.7	2.8	4						
	Sodium (Filtered)	mg/l	1 : 0.5 (Interlab)	89	86	3						

Notes
LOR = Limit of Reporting
µg/L = micrograms per litre
mg/L = milligrams per litre
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

			Lab Report Number	ES2240328	ES2240328		ES2240328	ES2240328		ES2240927	ES2240927	
			Field ID	0902_MW025_221107	0902_QC108_221107	**RPD**	0902_SW019_221107	0902_QC109_221107	**RPD**	0902_MW074_221110	0902_QC111_221110	**RPD**
			Sampled Date/Time	7/11/2022 10:39	7/11/2022 10:39		7/11/2022 13:10	7/11/2022 13:10		10/11/2022 9:40	10/11/2022 9:40	
			Sample Type	Primary	Intralab Duplicate		Primary	Intralab Duplicate		Primary	Intralab Duplicate	
Chem_Group	**ChemName**	**Units**	**LOR**									
Per- and Poly-fluoroalkyl Substances	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	<0.01	<0.01	nc	0.01	<0.01	nc	1.44	1.45	1
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.01	0.02	67	0.05	0.04	22	6.32	7.85	22
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.05	0.04	22	0.04	0.04	0	39.2	34.8	12
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	7.99	6.66	18
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	1.89	1.85	2
	Perfluorononanoic acid (PFNA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	10.2	10.4	2
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	**0.73**	**1.06**	**37**
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	1.02	1.09	7
	Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 : 0.05 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	6.45	6.09	6
	Perfluorobutanoic acid (PFBA)	µg/L	0.1 : 0.02 (Interlab)	<0.1	<0.1	nc	<0.1	<0.1	nc	4.5	4.1	9
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Sum of PFHxS and PFOS	µg/L	0.01	0.06	0.06	0	0.09	0.08	12	45.5	42.6	7
	Sum of PFAS	µg/L	0.01	0.06	0.06	0	0.1	0.08	22	79.7	75.4	6
	Sum of PFAS (WA DER List)	µg/L	0.01	0.06	0.06	0	0.1	0.08	22	71	67.6	5
Metals	Aluminium	mg/l	0.01									
	Calcium (Filtered)	mg/l	1 : 0.5 (Interlab)									
	Iron	mg/l	0.05									
	Magnesium (Filtered)	mg/l	1 : 0.5 (Interlab)									
	Manganese	mg/l	0.001									
	Potassium (Filtered)	mg/l	1 : 0.5 (Interlab)									
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/l	1 : 5 (Interlab)									
	Alkalinity (Carbonate as CaCO3)	mg/l	1 : 5 (Interlab)									
	Nitrite + Nitrate as N	mg/l	0.01									
	Phosphate total (as P)	mg/l	0.01									
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/l	1									
	Alkalinity (Hydroxide as CaCO3)	mg/l	1 : 5 (Interlab)									
	Alkalinity (total) as CaCO3	mg/l	1 : 5 (Interlab)									
	Ammonia as N	µg/l	10									
	Anions Total	meq/L	0.01									
	Bromine	µg/l	100									
	Cations Total	meq/L	0.01									
	Chloride	mg/l	1									
	Ionic Balance	%	0.01									
	Kjeldahl Nitrogen Total	mg/l	0.1									
	Nitrate (as N)	mg/l	0.01									
	Nitrite (as N)	mg/l	0.01									
	Nitrogen (Total)	mg/l	0.1									
	Sodium (Filtered)	mg/l	1 : 0.5 (Interlab)									

Notes
LOR = Limit of Reporting
µg/L = micrograms per litre
mg/L = milligrams per litre
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

			Lab Report Number	ES2240927	ES2240927		ES2240927	ES2240927		ES2239683	310103	
			Field ID	0902_SW016_221110	0902_QC112_221110	**RPD**	0902_SW008_221111	0902_QC113_221111	**RPD**	0902_MW008_221102	0902_QC200_221102	**RPD**
			Sampled Date/Time	10/11/2022 1:45	10/11/2022 1:45		11/11/2022 12:40	11/11/2022 12:40		2/11/2022 9:14	2/11/2022 9:14	
			Sample Type	Primary	Intralab Duplicate		Primary	Intralab Duplicate		Primary	Interlab Duplicate	
Chem_Group	**ChemName**	**Units**	**LOR**									
Per- and Poly-fluoroalkyl Substances	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	0.02	0.02	0	0.01	0.02	67	<0.01	<0.01	nc
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.4	0.34	16	0.2	0.23	14	0.37	0.34	8
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.58	0.49	17	0.16	0.16	0	0.31	0.35	12
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.01	nc
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	0.13	nc
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.02	nc
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.02	nc
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.1	nc
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.5	nc
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 : 0.01 (Interlab)	0.06	0.05	18	0.02	<0.02	nc	0.09	0.1	11
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	0.02	<0.02	nc
	Perfluorononanoic acid (PFNA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 : 0.01 (Interlab)	0.06	0.05	18	0.03	0.03	0	0.09	0.06	40
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
	Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 : 0.05 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.05	nc
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	0.05	0.05	0	0.02	<0.02	nc	0.09	0.09	0
	Perfluorobutanoic acid (PFBA)	µg/L	0.1 : 0.02 (Interlab)	<0.1	<0.1	nc	<0.1	<0.1	nc	<0.1	0.02	nc
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.5	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.1	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.1	nc
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Sum of PFHxS and PFOS	µg/L	0.01	0.98	0.83	17	0.36	0.39	8	0.68	0.69	1
	Sum of PFAS	µg/L	0.01	1.17	1	16	0.44	0.44	0	0.97	1.1	13
	Sum of PFAS (WA DER List)	µg/L	0.01	1.11	0.95	16	0.42	0.44	5	0.88		
Metals	Aluminium	mg/l	0.01	0.01	0.01	0	0.03	0.03	0			
	Calcium (Filtered)	mg/l	1 : 0.5 (Interlab)	47	48	2	35	35	0			
	Iron	mg/l	0.05	0.16	0.16	0	0.36	0.37	3			
	Magnesium (Filtered)	mg/l	1 : 0.5 (Interlab)	26	27	4	40	40	0			
	Manganese	mg/l	0.001	0.413	0.414	0	1.38	1.39	1			
	Potassium (Filtered)	mg/l	1 : 0.5 (Interlab)	12	12	0	9	9	0			
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/l	1 : 5 (Interlab)	224	224	0	103	102	1			
	Alkalinity (Carbonate as CaCO3)	mg/l	1 : 5 (Interlab)	<1	<1	nc	<1	<1	nc			
	Nitrite + Nitrate as N	mg/l	0.01	0.02	0.02	0	0.06	0.06	0			
	Phosphate total (as P)	mg/l	0.01	0.09	0.1	11	0.13	0.11	17			
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/l	1	7	7	0	42	46	9			
	Alkalinity (Hydroxide as CaCO3)	mg/l	1 : 5 (Interlab)	<1	<1	nc	<1	<1	nc			
	Alkalinity (total) as CaCO3	mg/l	1 : 5 (Interlab)	224	224	0	103	102	1			
	Ammonia as N	µg/l	10	40	30	29	620	600	3			
	Anions Total	meq/L	0.01	9.73	9.81	1	15	16	6			
	Bromine	µg/l	100	800	700	13	1100	1100	0			
	Cations Total	meq/L	0.01	9.32	9.4	1	14.5	14.8	2			
	Chloride	mg/l	1	181	184	2	428	460	7			
	Ionic Balance	%	0.01	2.16	2.12	2	**1.75**	**3.97**	**78**			
	Kjeldahl Nitrogen Total	mg/l	0.1	1.3	1.3	0	1.4	1.5	7			
	Nitrate (as N)	mg/l	0.01	0.02	0.02	0	0.04	0.04	0			
	Nitrite (as N)	mg/l	0.01	<0.01	<0.01	nc	0.02	0.02	0			
	Nitrogen (Total)	mg/l	0.1	1.3	1.3	0	1.5	1.6	6			
	Sodium (Filtered)	mg/l	1 : 0.5 (Interlab)	104	103	1	212	218	3			

Notes
LOR = Limit of Reporting
µg/L = micrograms per litre
mg/L = milligrams per litre
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

		Lab Report Number	ES2240328	310103		ES2240328	310103		ES2240328	310103	
		Field ID	0902_SW019_221107	0902_QC209_221107	**RPD**	0902_MW022_221108	0902_QC211_221108	**RPD**	0902_MW078_221108	0902_QC212_221108	**RPD**
		Sampled Date/Time	7/11/2022 13:10	7/11/2022 13:10		8/11/2022 10:00	8/11/2022 10:00		8/11/2022 13:55	8/11/2022 13:55	
		Sample Type	Primary	Interlab Duplicate		Primary	Interlab Duplicate		Primary	Interlab Duplicate	
Chem_Group	**ChemName**	**Units**	**LOR**								
Per- and Poly-fluoroalkyl Substances	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	0.01	<0.01	nc	0.07	0.06	15	0.01	<0.01	nc
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.05	0.04	22	**1.24**	**0.91**	**31**	0.03	0.03	0
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.04	0.03	29	2.39	2.2	8	0.67	0.58	14
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.01	nc	<0.05	<0.01	nc	<0.05	<0.01	nc
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.01	nc	<0.05	<0.01	nc	<0.05	<0.01	nc
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.02	nc	<0.05	<0.02	nc	<0.05	<0.02	nc
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.02	nc	<0.05	<0.02	nc	<0.05	<0.02	nc
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.1	nc	<0.02	<0.1	nc	<0.02	<0.1	nc
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.5	nc	<0.05	<0.5	nc	<0.05	<0.5	nc
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc	0.34	0.33	3	0.1	0.1	0
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	nc	0.06	0.06	0	0.06	0.05	18
	Perfluorononanoic acid (PFNA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc	<0.02	<0.01	nc	<0.02	<0.01	nc
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	0.01	nc	**0.32**	**0.23**	**33**	0.16	0.12	29
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc	0.07	0.07	0	<0.02	<0.01	nc
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc	0.04	0.04	0	<0.02	0.01	nc
	Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 : 0.05 (Interlab)	<0.02	<0.05	nc	<0.02	<0.05	nc	<0.02	<0.05	nc
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc	0.28	0.27	4	0.08	0.08	0
	Perfluorobutanoic acid (PFBA)	µg/L	0.1 : 0.02 (Interlab)	<0.1	0.04	nc	<0.1	0.06	nc	0.1	0.1	0
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.5	nc	<0.05	<0.5	nc	<0.05	<0.5	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.1	nc	<0.05	<0.1	nc	<0.05	<0.1	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.1	nc	<0.02	<0.1	nc	<0.02	<0.1	nc
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Sum of PFHxS and PFOS	µg/L	0.01	0.09	0.07	25	3.63	3.1	16	0.7	0.61	14
	Sum of PFAS	µg/L	0.01	0.1	0.12	18	4.81	4.2	14	1.21	1.1	10
	Sum of PFAS (WA DER List)	µg/L	0.01	0.1								
Metals	Aluminium	mg/l	0.01									
	Calcium (Filtered)	mg/l	1 : 0.5 (Interlab)				131	130	1			
	Iron	mg/l	0.05									
	Magnesium (Filtered)	mg/l	1 : 0.5 (Interlab)				105	110	5			
	Manganese	mg/l	0.001									
	Potassium (Filtered)	mg/l	1 : 0.5 (Interlab)				2	2	0			
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/l	1 : 5 (Interlab)				482	500	4			
	Alkalinity (Carbonate as CaCO3)	mg/l	1 : 5 (Interlab)				<1	<5	nc			
	Nitrite + Nitrate as N	mg/l	0.01									
	Phosphate total (as P)	mg/l	0.01									
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/l	1									
	Alkalinity (Hydroxide as CaCO3)	mg/l	1 : 5 (Interlab)				<1	<5	nc			
	Alkalinity (total) as CaCO3	mg/l	1 : 5 (Interlab)				482	500	4			
	Ammonia as N	µg/l	10									
	Anions Total	meq/L	0.01									
	Bromine	µg/l	100									
	Cations Total	meq/L	0.01									
	Chloride	mg/l	1				1090	890	20			
	Ionic Balance	%	0.01				**4.57**	**3**	**41**			
	Kjeldahl Nitrogen Total	mg/l	0.1									
	Nitrate (as N)	mg/l	0.01									
	Nitrite (as N)	mg/l	0.01									
	Nitrogen (Total)	mg/l	0.1									
	Sodium (Filtered)	mg/l	1 : 0.5 (Interlab)				514	520	1			

Notes
LOR = Limit of Reporting
µg/L = micrograms per litre
mg/L = milligrams per litre
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

			Lab Report Number	ES2240328	310103		ES2239683	310103		ES2240328	310103	
			Field ID	0902_MW106_221108	0902_QC213_221108	**RPD**	0902_MW024_221102	0902_QC201_221102	**RPD**	0902_MW056_221107	0902_QC203_221107	**RPD**
			Sampled Date/Time	8/11/2022 14:30	8/11/2022 14:30		2/11/2022 16:10	2/11/2022 16:10		7/11/2022 8:51	7/11/2022 8:51	
			Sample Type	Primary	Interlab Duplicate		Primary	Interlab Duplicate		Primary	Interlab Duplicate	
Chem_Group	**ChemName**	**Units**	**LOR**									
Per- and Poly-fluoroalkyl Substances	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	0.08	0.07	13	<0.01	<0.01	nc	<0.01	<0.01	nc
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	**1.64**	**1.1**	**39**	**0.3**	**0.09**	**108**	0.02	0.02	0
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	2.2	1.9	15	**0.25**	**0.39**	**44**	0.01	0.01	0
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.01	nc	<0.05	<0.01	nc	<0.05	<0.01	nc
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.01	nc	<0.05	<0.01	nc	<0.05	<0.01	nc
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.02	nc	<0.05	<0.02	nc	<0.05	<0.02	nc
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.02	nc	<0.05	<0.02	nc	<0.05	<0.02	nc
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.1	nc	<0.02	<0.1	nc	<0.02	<0.1	nc
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.5	nc	<0.05	<0.5	nc	<0.05	<0.5	nc
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 : 0.01 (Interlab)	0.32	0.3	6	**0.1**	**0.19**	**62**	<0.02	<0.01	nc
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	0.07	0.06	15	0.04	0.03	29	<0.02	<0.02	nc
	Perfluorononanoic acid (PFNA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc	<0.02	<0.01	nc	<0.02	<0.01	nc
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 : 0.01 (Interlab)	0.34	0.27	23	0.09	0.09	nc	<0.02	<0.01	nc
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 : 0.01 (Interlab)	0.13	0.12	8	<0.02	<0.01	nc	<0.02	<0.01	nc
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 : 0.01 (Interlab)	0.05	0.04	22	<0.02	<0.01	nc	<0.02	<0.01	nc
	Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 : 0.05 (Interlab)	<0.02	<0.05	nc	<0.02	<0.05	nc	<0.02	<0.05	nc
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	0.27	0.27	0	**0.1**	**0.2**	**67**	<0.02	<0.01	nc
	Perfluorobutanoic acid (PFBA)	µg/L	0.1 : 0.02 (Interlab)	<0.1	0.04	nc	<0.1	0.03	nc	<0.1	<0.02	nc
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.5	nc	<0.05	<0.5	nc	<0.05	<0.5	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.1	nc	<0.05	<0.1	nc	<0.05	<0.1	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.1	nc	<0.02	<0.1	nc	<0.02	<0.1	nc
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Sum of PFHxS and PFOS	µg/L	0.01	3.84	3	25	0.55	0.48	14	0.03	0.03	0
	Sum of PFAS	µg/L	0.01	5.1	4.2	19	0.88	1	13	0.03	0.03	0
	Sum of PFAS (WA DER List)	µg/L	0.01				0.78			0.03		
Metals	Aluminium	mg/l	0.01									
	Calcium (Filtered)	mg/l	1 : 0.5 (Interlab)									
	Iron	mg/l	0.05									
	Magnesium (Filtered)	mg/l	1 : 0.5 (Interlab)									
	Manganese	mg/l	0.001									
	Potassium (Filtered)	mg/l	1 : 0.5 (Interlab)									
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/l	1 : 5 (Interlab)									
	Alkalinity (Carbonate as CaCO3)	mg/l	1 : 5 (Interlab)									
	Nitrite + Nitrate as N	mg/l	0.01									
	Phosphate total (as P)	mg/l	0.01									
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/l	1									
	Alkalinity (Hydroxide as CaCO3)	mg/l	1 : 5 (Interlab)									
	Alkalinity (total) as CaCO3	mg/l	1 : 5 (Interlab)									
	Ammonia as N	µg/l	10									
	Anions Total	meq/L	0.01									
	Bromine	µg/l	100									
	Cations Total	meq/L	0.01									
	Chloride	mg/l	1									
	Ionic Balance	%	0.01									
	Kjeldahl Nitrogen Total	mg/l	0.1									
	Nitrate (as N)	mg/l	0.01									
	Nitrite (as N)	mg/l	0.01									
	Nitrogen (Total)	mg/l	0.1									
	Sodium (Filtered)	mg/l	1 : 0.5 (Interlab)									

Notes
LOR = Limit of Reporting
µg/L = micrograms per litre
mg/L = milligrams per litre
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

			Lab Report Number	ES2240328	310103		ES2240328	310103		ES2240328	310103	
			Field ID	0902_SW023_221107	0902_QC204_221107	**RPD**	0902_MW059_221107	0902_QC205_221107	**RPD**	0902_MW060_221107	0902_QC207_221107	**RPD**
			Sampled Date/Time	7/11/2022 13:40	7/11/2022 13:40		7/11/2022 9:08	7/11/2022 9:08		7/11/2022 9:55	7/11/2022 9:55	
			Sample Type	Primary	Interlab Duplicate		Primary	Interlab Duplicate		Primary	Interlab Duplicate	
Chem_Group	**ChemName**	**Units**	**LOR**									
Per- and Poly-fluoroalkyl Substances	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	0.02	0.01	67	0.03	0.02	40	0.04	0.03	29
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.29	0.22	27	0.1	0.07	35	**0.23**	**0.14**	**49**
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.17	0.16	6	5.01	4.3	15	0.18	0.16	12
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.01	nc	<0.05	<0.01	nc	<0.05	<0.01	nc
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.01	nc	<0.05	0.01	nc	<0.05	<0.01	nc
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.02	nc	<0.05	<0.02	nc	<0.05	<0.02	nc
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.02	nc	<0.05	<0.02	nc	<0.05	<0.02	nc
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.1	nc	<0.02	<0.1	nc	<0.02	<0.1	nc
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.5	nc	<0.05	<0.5	nc	<0.05	<0.5	nc
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 : 0.01 (Interlab)	0.02	0.02	0	2.9	2.8	4	<0.02	0.02	nc
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	nc	0.8	0.66	19	0.03	0.03	0
	Perfluorononanoic acid (PFNA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc	<0.02	<0.01	nc	<0.02	<0.01	nc
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 : 0.01 (Interlab)	0.04	0.03	29	**4.22**	**2.9**	**37**	0.07	0.05	33
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc	<0.02	<0.01	nc	<0.02	0.01	nc
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc	0.47	0.4	16	<0.02	0.02	nc
	Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 : 0.05 (Interlab)	<0.02	<0.05	nc	<0.02	<0.05	nc	<0.02	<0.05	nc
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	0.03	0.03	0	3.52	3	16	<0.02	0.02	nc
	Perfluorobutanoic acid (PFBA)	µg/L	0.1 : 0.02 (Interlab)	<0.1	0.05	nc	0.6	0.53	12	<0.1	0.06	nc
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.5	nc	<0.05	<0.5	nc	<0.05	<0.5	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.1	nc	<0.05	<0.1	nc	<0.05	<0.1	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.1	nc	<0.02	<0.1	nc	<0.02	<0.1	nc
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Sum of PFHxS and PFOS	µg/L	0.01	0.46	0.38	19	5.11	4.3	17	0.41	0.31	28
	Sum of PFAS	µg/L	0.01	0.57	0.52	9	17.6	15	16	0.55	0.55	0
	Sum of PFAS (WA DER List)	µg/L	0.01							0.55		
Metals	Aluminium	mg/l	0.01									
	Calcium (Filtered)	mg/l	1 : 0.5 (Interlab)	33	31	6						
	Iron	mg/l	0.05									
	Magnesium (Filtered)	mg/l	1 : 0.5 (Interlab)	31	32	3						
	Manganese	mg/l	0.001									
	Potassium (Filtered)	mg/l	1 : 0.5 (Interlab)	8	7.8	3						
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/l	1 : 5 (Interlab)	88	91	3						
	Alkalinity (Carbonate as CaCO3)	mg/l	1 : 5 (Interlab)	<1	<5	nc						
	Nitrite + Nitrate as N	mg/l	0.01									
	Phosphate total (as P)	mg/l	0.01									
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/l	1									
	Alkalinity (Hydroxide as CaCO3)	mg/l	1 : 5 (Interlab)	<1	<5	nc						
	Alkalinity (total) as CaCO3	mg/l	1 : 5 (Interlab)	88	91	3						
	Ammonia as N	µg/l	10									
	Anions Total	meq/L	0.01									
	Bromine	µg/l	100									
	Cations Total	meq/L	0.01									
	Chloride	mg/l	1	342	270	24						
	Ionic Balance	%	0.01	3.73	5	29						
	Kjeldahl Nitrogen Total	mg/l	0.1									
	Nitrate (as N)	mg/l	0.01									
	Nitrite (as N)	mg/l	0.01									
	Nitrogen (Total)	mg/l	0.1									
	Sodium (Filtered)	mg/l	1 : 0.5 (Interlab)	159	160	1						

Notes
LOR = Limit of Reporting
µg/L = micrograms per litre
mg/L = milligrams per litre
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

Lab Report Number	ES2240328	310103	
Field ID	0902_MW046_221107	0902_QC208_221107	**RPD**
Sampled Date/Time	7/11/2022 15:00	7/11/2022 15:00	
Sample Type	Primary	Interlab Duplicate	

Chem_Group	ChemName	Units	LOR			
Per- and Poly-fluoroalkyl Substances	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	<0.01	<0.01	nc
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	nc
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.05	0.04	22
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.01	nc
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	0.05	nc
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.02	nc
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.02	nc
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	nc
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.1	nc
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.5	nc
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	0.01	nc
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	nc
	Perfluorononanoic acid (PFNA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	0.01	nc
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc
	Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	nc
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 : 0.05 (Interlab)	<0.02	<0.05	nc
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	nc
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	0.01	nc
	Perfluorobutanoic acid (PFBA)	µg/L	0.1 : 0.02 (Interlab)	<0.1	<0.02	nc
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.5	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.1	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	nc
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.1	nc
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	nc
	Sum of PFHxS and PFOS	µg/L	0.01	0.05	0.04	22
	Sum of PFAS	µg/L	0.01	**0.05**	**0.13**	**89**
	Sum of PFAS (WA DER List)	µg/L	0.01			
Metals	Aluminium	mg/l	0.01			
	Calcium (Filtered)	mg/l	1 : 0.5 (Interlab)			
	Iron	mg/l	0.05			
	Magnesium (Filtered)	mg/l	1 : 0.5 (Interlab)			
	Manganese	mg/l	0.001			
	Potassium (Filtered)	mg/l	1 : 0.5 (Interlab)			
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/l	1 : 5 (Interlab)			
	Alkalinity (Carbonate as CaCO3)	mg/l	1 : 5 (Interlab)			
	Nitrite + Nitrate as N	mg/l	0.01			
	Phosphate total (as P)	mg/l	0.01			
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/l	1			
	Alkalinity (Hydroxide as CaCO3)	mg/l	1 : 5 (Interlab)			
	Alkalinity (total) as CaCO3	mg/l	1 : 5 (Interlab)			
	Ammonia as N	µg/l	10			
	Anions Total	meq/L	0.01			
	Bromine	µg/l	100			
	Cations Total	meq/L	0.01			
	Chloride	mg/l	1			
	Ionic Balance	%	0.01			
	Kjeldahl Nitrogen Total	mg/l	0.1			
	Nitrate (as N)	mg/l	0.01			
	Nitrite (as N)	mg/l	0.01			
	Nitrogen (Total)	mg/l	0.1			
	Sodium (Filtered)	mg/l	1 : 0.5 (Interlab)			

Notes
LOR = Limit of Reporting
µg/L = micrograms per litre
mg/L = milligrams per litre
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D2 - Sediment Duplicate RPDs

		Lab Report Number	ES2239683	ES2239683		ES2240328	ES2240328		ES2240328	ES2240328	
		Field ID	0902_SD022_221103	0902_QC102_221103	**RPD**	0902_SD001_221107	0902_QC106_221107	**RPD**	0902_SD023_221107	0902_QC110_221107	**RPD**
		Sampled Date/Time	3/11/2022 10:15	3/11/2022 10:15		7/11/2022 9:24	7/11/2022 9:24		7/11/2022 13:40	7/11/2022 13:40	
Chem_Group	**ChemName**	**Units**	**EQL**								
Per- and Poly-fluoroalkyl Substances	Perfluorooctanoic Acid (PFOA)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0002	nc	0.0926	0.101	9	<0.0002	<0.0002	nc
	Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002 : 0.0001 (Interlab)	**0.0049**	**0.01**	**68**	8.2	8.53	4	0.0023	0.002	14
	Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002 : 0.0001 (Interlab)	0.0007	0.0016	78	0.218	0.204	7	0.0005	0.0004	22
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005 : 0.0001 (Interlab)	<0.0005	<0.0005	nc	<0.001	<0.001	nc	<0.0005	<0.0005	nc
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	mg/kg	0.0005 : 0.0001 (Interlab)	<0.0005	<0.0005	nc	0.0925	0.0926	0	<0.0005	<0.0005	nc
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005 : 0.0002 (Interlab)	<0.0005	<0.0005	nc	3.52	3.82	8	<0.0005	<0.0005	nc
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005 : 0.0002 (Interlab)	<0.0005	<0.0005	nc	0.493	0.511	4	<0.0005	<0.0005	nc
	Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002 : 0.0005 (Interlab)	<0.0002	<0.0002	nc	5.53	5.58	1	<0.0002	<0.0002	nc
	Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002 : 0.0005 (Interlab)	<0.0002	<0.0002	nc	1.23	1.13	8	<0.0002	<0.0002	nc
	Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005 : 0.005 (Interlab)	<0.0005	<0.0005	nc	1.02	1.03	1	<0.0005	<0.0005	nc
	Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0002	nc	0.0112	0.0109	3	<0.0002	<0.0002	nc
	Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	nc	0.0054	0.0055	2	<0.0002	<0.0002	nc
	Perfluorononanoic acid (PFNA)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0002	nc	0.423	0.386	9	<0.0002	<0.0002	nc
	Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0002	nc	0.0222	0.0224	1	<0.0002	<0.0002	nc
	Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0002	nc	0.0367	0.0347	6	<0.0002	<0.0002	nc
	Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0002	nc	0.0291	0.0275	6	<0.0002	<0.0002	nc
	Perfluorodecane sulfonic acid (PFDS)	mg/kg	0.0002	**0.0011**	**0.0035**	**104**	0.318	0.32	1	<0.0002	<0.0002	nc
	Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002 : 0.0005 (Interlab)	<0.0002	<0.0002	nc	5.36	5.46	2	<0.0002	<0.0002	nc
	Perfluorodecanoic acid (PFDA)	mg/kg	0.0002 : 0.0005 (Interlab)	0.0003	0.0006	67	2.21	2.27	3	<0.0002	<0.0002	nc
	Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	0.0002	nc	0.0051	0.0053	4	<0.0002	<0.0002	nc
	Perfluorobutanoic acid (PFBA)	mg/kg	0.001 : 0.0002 (Interlab)	<0.001	<0.001	nc	<0.005	<0.005	nc	<0.001	<0.001	nc
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005 : 0.001 (Interlab)	<0.0005	<0.0005	nc	<0.0025	<0.0025	nc	<0.0005	<0.0005	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005 : 0.005 (Interlab)	<0.0005	<0.0005	nc	<0.0025	<0.0025	nc	<0.0005	<0.0005	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005 : 0.001 (Interlab)	<0.0005	<0.0005	nc	<0.0025	<0.0025	nc	<0.0005	<0.0005	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	mg/kg	0.0005 : 0.001 (Interlab)	<0.0005	<0.0005	nc	<0.0025	<0.0025	nc	<0.0005	<0.0005	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	0.0006	100	<0.001	<0.001	nc	<0.0002	<0.0002	nc
	Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002 : 0.001 (Interlab)	0.0005	0.0013	89	0.128	0.128	0	<0.0002	<0.0002	nc
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	0.0033	nc	<0.001	<0.001	nc	<0.0002	<0.0002	nc
	Sum of PFHxS and PFOS	mg/kg	0.0002 : 0.0001 (Interlab)	**0.0056**	**0.0116**	**70**	8.42	8.73	4	0.0028	0.0024	15
	Sum of PFAS	mg/kg	0.0002 : 0.0001 (Interlab)	**0.0075**	**0.0211**	**95**	28.9	29.7	3	0.0028	0.0024	15
	Sum of PFAS (WA DER List)	mg/kg	0.0002	**0.0056**	**0.0118**	**71**	12.2	12.8	5	0.0028	0.0024	15

Notes
LOR = Limit of Reporting
mg/kg = milligrams per kilograms
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 X LOR) are highlighted in bold

Table D2 - Sediment Duplicate RPDs

	Lab Report Number	ES2240328	310103		ES2239683	310103		ES2240328	310103	
	Field ID	0902_SD023_221107	0902_QC210_221107	RPD	0902_SD022_221103	0902_QC202_221103	RPD	0902_SD001_221107	0902_QC206_221107	RPD
	Sampled Date/Time	7/11/2022 13:40	7/11/2022 13:40		3/11/2022 10:15	3/11/2022 10:15		7/11/2022 9:24	7/11/2022 9:24	
Chem_Group	ChemName	Units	EQL							
Per- and Poly-fluoroalkyl Substances	Perfluorooctanoic Acid (PFOA)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0001	nc	<0.0002	<0.0001	nc	**0.0926**	**0.051**	**58**
	Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0002 : 0.0001 (Interlab)	0.0023	0.0025	8	**0.0049**	**0.0068**	**32**	8.2	6.5	23
	Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0002 : 0.0001 (Interlab)	0.0005	0.0003	50	0.0007	0.0009	25	**0.218**	**0.069**	**104**
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0005 : 0.0001 (Interlab)	<0.0005	<0.0001	nc	<0.0005	<0.0001	nc	<0.001	<0.0005	nc
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	mg/kg	0.0005 : 0.0001 (Interlab)	<0.0005	<0.0001	nc	<0.0005	<0.0001	nc	**0.0925**	**0.046**	**67**
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0005 : 0.0002 (Interlab)	<0.0005	<0.0002	nc	<0.0005	<0.0002	nc	3.52	3.6	2
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0005 : 0.0002 (Interlab)	<0.0005	<0.0002	nc	<0.0005	<0.0002	nc	**0.493**	**0.35**	**34**
	Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002 : 0.0005 (Interlab)	<0.0002	<0.0005	nc	<0.0002	<0.0005	nc	5.53	4.6	18
	Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002 : 0.0005 (Interlab)	<0.0002	<0.0005	nc	<0.0002	<0.0005	nc	1.23	1.2	2
	Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005 : 0.005 (Interlab)	<0.0005	<0.005	nc	<0.0005	<0.005	nc	1.02	0.98	4
	Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0001	nc	<0.0002	0.0001	nc	**0.0112**	**0.0053**	**72**
	Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	<0.0002	nc	0.0054	0.0051	6
	Perfluorononanoic acid (PFNA)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0001	nc	<0.0002	<0.0001	nc	0.423	0.33	25
	Perfluorohexanoic acid (PFHxA)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0001	nc	<0.0002	0.0001	nc	**0.0222**	**0.014**	**45**
	Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0001	nc	<0.0002	<0.0001	nc	**0.0367**	**0.019**	**64**
	Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0001	nc	<0.0002	<0.0001	nc	**0.0291**	**0.014**	**70**
	Perfluorodecane sulfonic acid (PFDS)	mg/kg	0.0002	<0.0002	0.0004	nc	**0.0011**	**0.0053**	**131**	0.318	0.32	1
	Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002 : 0.0005 (Interlab)	<0.0002	<0.0005	nc	<0.0002	<0.0005	nc	5.36	5.1	5
	Perfluorodecanoic acid (PFDA)	mg/kg	0.0002 : 0.0005 (Interlab)	<0.0002	<0.0005	nc	0.0003	<0.0005	nc	2.21	2.6	16
	Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0001	nc	<0.0002	0.0001	nc	0.0051	0.0038	29
	Perfluorobutanoic acid (PFBA)	mg/kg	0.001 : 0.0002 (Interlab)	<0.001	<0.0002	nc	<0.001	<0.0002	nc	<0.005	0.002	nc
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005 : 0.001 (Interlab)	<0.0005	<0.001	nc	<0.0005	<0.001	nc	<0.0025	<0.005	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005 : 0.005 (Interlab)	<0.0005	<0.005	nc	<0.0005	<0.005	nc	<0.0025	<0.02	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005 : 0.001 (Interlab)	<0.0005	<0.001	nc	<0.0005	<0.001	nc	<0.0025	<0.005	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	mg/kg	0.0005 : 0.001 (Interlab)	<0.0005	<0.001	nc	<0.0005	<0.001	nc	<0.0025	<0.005	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	0.0003	nc	<0.001	<0.001	nc
	Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002 : 0.001 (Interlab)	<0.0002	<0.001	nc	0.0005	0.001	67	**0.128**	**0.093**	**32**
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	<0.0002	<0.0002	nc	<0.0002	0.0021	nc	<0.001	<0.001	nc
	Sum of PFHxS and PFOS	mg/kg	0.0002 : 0.0001 (Interlab)	0.0028	0.0029	4	**0.0056**	**0.0077**	**32**	8.42	6.6	24
	Sum of PFAS	mg/kg	0.0002 : 0.0001 (Interlab)	0.0028	0.0032	13	**0.0075**	**0.017**	**78**	28.9	26	11
	Sum of PFAS (WA DER List)	mg/kg	0.0002	0.0028			0.0056			12.2		

Notes
LOR = Limit of Reporting
mg/kg = milligrams per kilograms
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 X LOR) are highlighted in bold

Table D3 - Rinsate Blanks

	Lab Report Number	ES2239683	ES2239683	ES2240328	ES2240328	ES2240927	ES2240927	ES2241892	ES2242128
	Field ID	0902_QC301_221103	0902_QC300_221102	0902_QC303_221108	0902_QC302_221107	0902_QC304_221110	0902_QC305_221111	0902_QC306_221118	0902_QC307_221121
	Sampled_Date/Time	3/11/2022 12:22	2/11/2022 18:00	8/11/2022 15:29	7/11/2022 16:42	10/11/2022 17:45	11/11/2022 14:47	18/11/2022 13:50	21/11/2022 13:40
	Sample Type	Rinsate	Rinsate	Rinsate	Rinsate	Rinsate	Rinsate	Rinsate	Rinsate
Chem_Group	**ChemName**	**Units**	**LOR**							
Inorganics	Alkalinity (Bicarbonate as CaCO3)	mg/l	1						<1	
	Alkalinity (Carbonate as CaCO3)	mg/l	1						<1	
	Nitrite + Nitrate as N	mg/l	0.01						<0.01	
	Phosphate total (as P)	mg/l	0.01						<0.01	
	Sulfate as SO4 - Turbidimetric (Filtered)	mg/l	1						**2**	
	Alkalinity (Hydroxide as CaCO3)	mg/l	1						<1	
	Alkalinity (total) as CaCO3	mg/l	1						<1	
	Ammonia as N	µg/l	10						<10	
	Anions Total	meq/L	0.01						**0.04**	
	Bromine	µg/l	100						<100	
	Cations Total	meq/L	0.01						<0.01	
	Chloride	mg/l	1						<1	
	Kjeldahl Nitrogen Total	mg/l	0.1						<0.1	
	Nitrate (as N)	mg/l	0.01						<0.01	
	Nitrite (as N)	mg/l	0.01						<0.01	
	Nitrogen (Total)	mg/l	0.1						<0.1	
	Sodium (Filtered)	mg/l	1						<1	
Metals	Aluminium	mg/l	0.01						<0.01	
	Calcium (Filtered)	mg/l	1						<1	
	Iron	mg/l	0.05						<0.05	
	Magnesium (Filtered)	mg/l	1						<1	
	Manganese	mg/l	0.001						<0.001	
	Potassium (Filtered)	mg/l	1						<1	
Per- and Poly-fluoroalkyl Substances	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Sum of PFAS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Sum of PFAS (WA DER List)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Appendix E

Laboratory Certificates

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2239683**	Page	: 1 of 25
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 03-Nov-2022 15:30
Order number	: 60612562_5.1	Date Analysis Commenced	: 03-Nov-2022
C-O-C number	: 44502	Issue Date	: 11-Nov-2022 15:57
Sampler	: JESSICA ROY, MAT JENKINS		
Site	: Richmond day 1		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 33		
No. of samples analysed	: 33		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO2 and Fluoride to the Anions.
- EG020: Bromine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW007_221102	0902_MW008_221102	0902_MW009_221102	0902_MW010_221102	0902_MW024_221102
				Sampling date / time	02-Nov-2022 13:33	02-Nov-2022 09:14	02-Nov-2022 09:40	02-Nov-2022 12:07	02-Nov-2022 16:10
Compound	CAS Number	LOR	Unit		ES2239683-001	ES2239683-002	ES2239683-003	ES2239683-004	ES2239683-005
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	<1	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	<1	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	**115**	**132**	----
Total Alkalinity as CaCO3	----	1	mg/L		----	----	**115**	**132**	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	**12**	**22**	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	**1900**	**271**	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	**87**	**30**	----
Magnesium	7439-95-4	1	mg/L		----	----	**154**	**21**	----
Sodium	7440-23-5	1	mg/L		----	----	**897**	**166**	----
Potassium	7440-09-7	1	mg/L		----	----	**3**	**2**	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	<0.01	<0.01	----
Manganese	7439-96-5	0.001	mg/L		----	----	**2.40**	**0.461**	----
Iron	7439-89-6	0.05	mg/L		----	----	<0.05	<0.05	----
Bromine	7726-95-6	0.1	mg/L		----	----	**5.8**	**1.6**	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	**0.02**	**0.06**	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	**0.01**	<0.01	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	**0.56**	**2.26**	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	**0.57**	**2.26**	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	----	**0.2**	**0.3**	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	----	**0.8**	**2.6**	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	**0.04**	**0.02**	----
EN055: Ionic Balance									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0902_MW007_221102	0902_MW008_221102	0902_MW009_221102	0902_MW010_221102	0902_MW024_221102
			Sampling date / time	02-Nov-2022 13:33	02-Nov-2022 09:14	02-Nov-2022 09:40	02-Nov-2022 12:07	02-Nov-2022 16:10
Compound	CAS Number	LOR	Unit	ES2239683-001	ES2239683-002	ES2239683-003	ES2239683-004	ES2239683-005
				Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued								
ø Total Anions	----	0.01	meq/L	----	----	**56.1**	**10.7**	----
ø Total Cations	----	0.01	meq/L	----	----	**56.1**	**10.5**	----
ø Ionic Balance	----	0.01	%	----	----	**0.03**	**1.14**	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	**0.09**	<0.02	**0.49**	**0.10**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	**0.09**	<0.02	**0.63**	**0.10**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	**0.31**	**0.04**	**4.20**	**0.25**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	**0.11**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	**0.37**	**0.12**	**3.01**	**0.30**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	**0.02**	<0.02	**0.19**	**0.04**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	**0.09**	<0.02	**1.34**	**0.09**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	**0.12**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	**0.23**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW007_221102	0902_MW008_221102	0902_MW009_221102	0902_MW010_221102	0902_MW024_221102
				Sampling date / time	02-Nov-2022 13:33	02-Nov-2022 09:14	02-Nov-2022 09:40	02-Nov-2022 12:07	02-Nov-2022 16:10
Compound	CAS Number	LOR	Unit		ES2239683-001	ES2239683-002	ES2239683-003	ES2239683-004	ES2239683-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.97**	**0.16**	**10.3**	**0.88**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.68**	**0.16**	**7.21**	**0.55**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.88**	**0.16**	**9.58**	**0.78**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**101**	**96.7**	**98.8**	**94.3**	**93.5**
13C8-PFOA	----	0.02	%		**96.9**	**90.5**	**92.4**	**94.5**	**90.1**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW027_221102	0902_MW028_221102	0902_MW040_221102	0902_MW042_221102	0902_MW043_221102
				Sampling date / time	02-Nov-2022 15:43	02-Nov-2022 15:17	02-Nov-2022 08:43	02-Nov-2022 12:50	02-Nov-2022 13:14
					ES2239683-006	ES2239683-007	ES2239683-008	ES2239683-010	ES2239683-011
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.22**	**2.97**	**3.09**	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.26**	**4.49**	**4.29**	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**1.28**	**16.5**	**34.4**	<0.01	**0.03**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.03**	**0.02**	**1.72**	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.49**	**0.10**	**38.1**	**0.02**	**0.13**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	**0.48**	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.5**	**0.9**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.04**	**1.00**	**1.30**	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.21**	**5.00**	**7.14**	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.02**	**0.74**	**0.68**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.03**	**0.24**	**1.32**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	**0.04**	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	**0.13**	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW027_221102	0902_MW028_221102	0902_MW040_221102	0902_MW042_221102	0902_MW043_221102
				Sampling date / time	02-Nov-2022 15:43	02-Nov-2022 15:17	02-Nov-2022 08:43	02-Nov-2022 12:50	02-Nov-2022 13:14
Compound	CAS Number	LOR	Unit		ES2239683-006	ES2239683-007	ES2239683-008	ES2239683-010	ES2239683-011
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	**0.06**	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**2.58**	**31.6**	**93.6**	**0.02**	**0.16**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.77**	**16.6**	**72.5**	**0.02**	**0.16**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**2.29**	**27.0**	**87.0**	**0.02**	**0.16**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**98.8**	**111**	**91.7**	**111**	**99.7**
13C8-PFOA	----	0.02	%		**91.5**	**99.3**	**92.4**	**103**	**91.3**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW047_221102	0902_MW048_221102	0902_MW050_221102	0902_MW051_221102	0902_MW052_221102
				Sampling date / time	02-Nov-2022 14:09	02-Nov-2022 13:51	02-Nov-2022 14:57	02-Nov-2022 14:44	02-Nov-2022 14:24
					ES2239683-012	ES2239683-013	ES2239683-014	ES2239683-015	ES2239683-016
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.09**	**0.12**	**2.94**	**96.4**	**0.43**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.11**	**0.13**	**3.67**	**149**	**0.46**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.56**	**0.37**	**13.4**	**1120**	**1.39**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.03**	<0.02	**1.00**	**125**	**0.02**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.55**	<0.01	**24.4**	**660**	**0.42**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	**0.03**	<0.05	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.7**	**20.8**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.03**	**1.16**	**36.2**	**0.14**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.09**	**0.20**	**5.04**	**175**	**0.72**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.61**	**21.3**	**0.04**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.02**	<0.01	**0.99**	**65.3**	**0.03**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	**0.02**	**0.50**	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.12	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	**0.03**	<0.05	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.12	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.12	<0.05

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW047_221102	0902_MW048_221102	0902_MW050_221102	0902_MW051_221102	0902_MW052_221102
				Sampling date / time	02-Nov-2022 14:09	02-Nov-2022 13:51	02-Nov-2022 14:57	02-Nov-2022 14:44	02-Nov-2022 14:24
					ES2239683-012	ES2239683-013	ES2239683-014	ES2239683-015	ES2239683-016
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.12	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.12	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	**0.14**	**0.24**	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	**0.05**	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.45**	**0.85**	**54.2**	**2470**	**3.65**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.11**	**0.37**	**37.8**	**1780**	**1.81**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.31**	**0.72**	**49.4**	**2200**	**3.17**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**96.4**	**101**	**100**	**118**	**104**
13C8-PFOA	----	0.02	%		**95.2**	**93.7**	**94.2**	**106**	**95.3**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW064_221102	0902_MW065_221102	0902_MW066_221102	0902_MW081_221103	0902_QC100_221102
				Sampling date / time	02-Nov-2022 11:25	02-Nov-2022 10:56	02-Nov-2022 10:36	03-Nov-2022 09:40	02-Nov-2022 09:05
Compound	CAS Number	LOR	Unit		ES2239683-017	ES2239683-018	ES2239683-019	ES2239683-020	ES2239683-027
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	----	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	----	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	----	286	----
Total Alkalinity as CaCO3	----	1	mg/L		----	----	----	286	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	----	64	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	----	201	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	----	28	----
Magnesium	7439-95-4	1	mg/L		----	----	----	23	----
Sodium	7440-23-5	1	mg/L		----	----	----	212	----
Potassium	7440-09-7	1	mg/L		----	----	----	<1	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	----	<0.01	----
Manganese	7439-96-5	0.001	mg/L		----	----	----	1.83	----
Iron	7439-89-6	0.05	mg/L		----	----	----	0.29	----
Bromine	7726-95-6	0.1	mg/L		----	----	----	0.9	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	----	0.03	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	----	0.09	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	----	2.22	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	----	2.31	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	----	----	0.9	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	----	----	3.2	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	----	0.20	----
EN055: Ionic Balance									

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW064_221102	0902_MW065_221102	0902_MW066_221102	0902_MW081_221103	0902_QC100_221102
				Sampling date / time	02-Nov-2022 11:25	02-Nov-2022 10:56	02-Nov-2022 10:36	03-Nov-2022 09:40	02-Nov-2022 09:05
					ES2239683-017	ES2239683-018	ES2239683-019	ES2239683-020	ES2239683-027
					Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued									
ø **Total Anions**	----	0.01	meq/L		----	----	----	**12.7**	----
ø **Total Cations**	----	0.01	meq/L		----	----	----	**12.5**	----
ø **Ionic Balance**	----	0.01	%		----	----	----	**0.81**	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.05**	**0.06**	**0.10**	<0.02	**0.11**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.05**	**0.05**	**0.10**	<0.02	**0.10**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.36**	**0.39**	**0.77**	**0.04**	**0.40**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.04**	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.17**	**0.02**	**0.52**	**0.07**	**0.39**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.02**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.02**	**0.02**	**0.06**	<0.02	**0.08**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.01**	<0.01	**0.02**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW064_221102	0902_MW065_221102	0902_MW066_221102	0902_MW081_221103	0902_QC100_221102
				Sampling date / time	02-Nov-2022 11:25	02-Nov-2022 10:56	02-Nov-2022 10:36	03-Nov-2022 09:40	02-Nov-2022 09:05
Compound	CAS Number	LOR	Unit		ES2239683-017	ES2239683-018	ES2239683-019	ES2239683-020	ES2239683-027
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.66**	**0.54**	**1.61**	**0.11**	**1.10**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.53**	**0.41**	**1.29**	**0.11**	**0.79**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.61**	**0.49**	**1.47**	**0.11**	**1.00**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**103**	**105**	**116**	**109**	**95.5**
13C8-PFOA	----	0.02	%		**96.2**	**100**	**99.7**	**98.8**	**100**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC101_221102	0902_QC103_221103	----	----	----
				Sampling date / time	02-Nov-2022 16:10	03-Nov-2022 09:45	----	----	----
Compound	CAS Number	LOR	Unit		ES2239683-028	ES2239683-030	--------	--------	--------
					Result	Result	----	----	----
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	<1	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	<1	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	284	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L		----	284	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	51	----	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	201	----	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	28	----	----	----
Magnesium	7439-95-4	1	mg/L		----	23	----	----	----
Sodium	7440-23-5	1	mg/L		----	213	----	----	----
Potassium	7440-09-7	1	mg/L		----	<1	----	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	<0.01	----	----	----
Manganese	7439-96-5	0.001	mg/L		----	1.83	----	----	----
Iron	7439-89-6	0.05	mg/L		----	0.30	----	----	----
Bromine	7726-95-6	0.1	mg/L		----	1.0	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	0.02	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	0.08	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	2.32	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	2.40	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	0.6	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	3.0	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	0.17	----	----	----
EN055: Ionic Balance									

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0902_QC101_221102	0902_QC103_221103	----	----	----
			Sampling date / time	02-Nov-2022 16:10	03-Nov-2022 09:45	----	----	----
Compound	CAS Number	LOR	Unit	ES2239683-028	ES2239683-030	--------	--------	--------
				Result	Result	----	----	----
EN055: Ionic Balance - Continued								
ø **Total Anions**	----	0.01	meq/L	**----**	**12.4**	----	----	----
ø **Total Cations**	----	0.01	meq/L	**----**	**12.6**	----	----	----
ø **Ionic Balance**	----	0.01	%	**----**	**0.60**	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**0.15**	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**0.14**	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.31**	**0.03**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.23**	**0.05**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	**0.04**	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**0.11**	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC101_221102	0902_QC103_221103	----	----	----
				Sampling date / time	02-Nov-2022 16:10	03-Nov-2022 09:45	----	----	----
Compound	CAS Number	LOR	Unit		ES2239683-028	ES2239683-030	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.98**	**0.08**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.54**	**0.08**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.84**	**0.08**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**109**	**94.4**	----	----	----
13C8-PFOA	----	0.02	%		**102**	**102**	----	----	----

Analytical Results

Sub-Matrix: PROCESS WATER (Matrix: WATER)				Sample ID	0902_MW041_221102	----	----	----	----
				Sampling date / time	02-Nov-2022 12:24	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2239683-009	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.02**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.03**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: PROCESS WATER (Matrix: WATER)				Sample ID	0902_MW041_221102	----	----	----	----
				Sampling date / time	02-Nov-2022 12:24	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2239683-009	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.05**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.05**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.05**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**102**	----	----	----	----
13C8-PFOA	----	0.02	%		**90.6**	----	----	----	----

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)				Sample ID	0902_QC301_221103	0902_QC300_221102	----	----	----
				Sampling date / time	03-Nov-2022 12:22	02-Nov-2022 18:00	----	----	----
Compound	CAS Number	LOR	Unit		ES2239683-032	ES2239683-033	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC301_221103	0902_QC300_221102	----	----	----
				Sampling date / time	03-Nov-2022 12:22	02-Nov-2022 18:00	----	----	----
Compound	CAS Number	LOR	Unit		ES2239683-032	ES2239683-033	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**103**	**96.2**	----	----	----
13C8-PFOA	----	0.02	%		**101**	**99.6**	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0902_SD022_221103	0902_SD024_221103	0902_SD035_221103	0902_QC102_221103	----
			Sampling date / time	03-Nov-2022 10:15	03-Nov-2022 11:40	03-Nov-2022 10:55	03-Nov-2022 10:15	----
Compound	CAS Number	LOR	Unit	ES2239683-021	ES2239683-022	ES2239683-023	ES2239683-029	--------
				Result	Result	Result	Result	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**47.0**	**25.1**	**33.3**	**50.2**	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	**0.0002**	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0007**	<0.0002	<0.0002	**0.0016**	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0049**	<0.0002	**0.0006**	**0.0100**	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	**0.0011**	<0.0002	<0.0002	**0.0035**	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	**0.0003**	<0.0002	<0.0002	**0.0006**	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	**0.0005**	<0.0002	<0.0002	**0.0013**	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD022_221103	0902_SD024_221103	0902_SD035_221103	0902_QC102_221103	----
				Sampling date / time	03-Nov-2022 10:15	03-Nov-2022 11:40	03-Nov-2022 10:55	03-Nov-2022 10:15	----
Compound	CAS Number	LOR	Unit		ES2239683-021	ES2239683-022	ES2239683-023	ES2239683-029	--------
					Result	Result	Result	Result	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0006**	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0033**	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0075**	<0.0002	**0.0006**	**0.0211**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0056**	<0.0002	**0.0006**	**0.0116**	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0056**	<0.0002	**0.0006**	**0.0118**	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**97.5**	**108**	**106**	**98.0**	----
13C8-PFOA	----	0.0002	%		**82.0**	**110**	**96.0**	**91.0**	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0902_SW022_221103	0902_SW024_221103	0902_SW035_221103	0902_QC104_221103	----
			Sampling date / time	03-Nov-2022 10:20	03-Nov-2022 11:40	03-Nov-2022 11:02	03-Nov-2022 10:25	----
Compound	CAS Number	LOR	Unit	ES2239683-024	ES2239683-025	ES2239683-026	ES2239683-031	--------
				Result	Result	Result	Result	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	150	33	73	146	----
Total Alkalinity as CaCO3	----	1	mg/L	150	33	73	146	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	30	10	7	30	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	103	20	64	102	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	28	9	15	28	----
Magnesium	7439-95-4	1	mg/L	14	5	7	14	----
Sodium	7440-23-5	1	mg/L	89	15	40	86	----
Potassium	7440-09-7	1	mg/L	6	2	5	6	----
EG020T: Total Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	0.09	0.42	0.23	0.08	----
Manganese	7439-96-5	0.001	mg/L	0.512	0.012	0.411	0.487	----
Iron	7439-89-6	0.05	mg/L	0.37	0.52	0.56	0.34	----
Bromine	7726-95-6	0.1	mg/L	0.6	0.1	0.2	0.5	----
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0.01	mg/L	0.16	0.02	0.11	0.17	----
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	14797-65-0	0.01	mg/L	0.04	<0.01	<0.01	0.04	----
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	0.01	mg/L	1.76	0.32	0.07	1.76	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	1.80	0.32	0.07	1.80	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.9	0.3	1.2	1.0	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser								
^ Total Nitrogen as N	----	0.1	mg/L	2.7	0.6	1.3	2.8	----
EK067G: Total Phosphorus as P by Discrete Analyser								
Total Phosphorus as P	----	0.01	mg/L	0.14	0.03	0.14	0.17	----
EN055: Ionic Balance								

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0902_SW022_221103	0902_SW024_221103	0902_SW035_221103	0902_QC104_221103	----
			Sampling date / time	03-Nov-2022 10:20	03-Nov-2022 11:40	03-Nov-2022 11:02	03-Nov-2022 10:25	----
Compound	CAS Number	LOR	Unit	ES2239683-024	ES2239683-025	ES2239683-026	ES2239683-031	--------
				Result	Result	Result	Result	----
EN055: Ionic Balance - Continued								
ø **Total Anions**	----	0.01	meq/L	**6.53**	**1.43**	**3.41**	**6.42**	**----**
ø **Total Cations**	----	0.01	meq/L	**6.57**	**1.56**	**3.19**	**6.44**	**----**
ø **Ionic Balance**	----	0.01	%	**0.36**	**----**	**3.29**	**0.19**	**----**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**0.04**	<0.02	<0.02	**0.04**	**----**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**0.04**	<0.02	<0.02	**0.04**	**----**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.20**	<0.01	**0.05**	**0.19**	**----**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.05**	<0.01	**0.04**	**0.04**	**----**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	**----**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**0.08**	<0.02	<0.02	**0.07**	**----**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	**0.01**	<0.01	<0.01	**0.01**	**----**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	**----**
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW022_221103	0902_SW024_221103	0902_SW035_221103	0902_QC104_221103	----
				Sampling date / time	03-Nov-2022 10:20	03-Nov-2022 11:40	03-Nov-2022 11:02	03-Nov-2022 10:25	----
Compound	CAS Number	LOR	Unit		ES2239683-024	ES2239683-025	ES2239683-026	ES2239683-031	--------
					Result	Result	Result	Result	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.42**	<0.01	**0.09**	**0.39**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.25**	<0.01	**0.09**	**0.23**	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.38**	<0.01	**0.09**	**0.35**	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**94.2**	**102**	**102**	**92.0**	----
13C8-PFOA	----	0.02	%		**102**	**102**	**104**	**103**	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **PROCESS WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **RINSATE**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SEDIMENT**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SURFACE WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2239683**	Page	: 1 of 11
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 03-Nov-2022
Site	: Richmond day 1	Issue Date	: 11-Nov-2022
Sampler	: JESSICA ROY, MAT JENKINS	No. of samples received	: 33
Order number	: 60612562_5.1	No. of samples analysed	: 33

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
ED045G: Chloride by Discrete Analyser	ES2239683--003	0902_MW009_221102	**Chloride**	16887-00-6	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EK055G: Ammonia as N by Discrete Analyser	ES2239580--001	Anonymous	**Ammonia as N**	7664-41-7	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser	ES2239580--001	Anonymous	**Total Kjeldahl Nitrogen as N**	----	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EK067G: Total Phosphorus as P by Discrete Analyser	ES2239580--001	Anonymous	**Total Phosphorus as P**	----	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Frequency of Quality Control Samples

Matrix: **SOIL**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Moisture Content	1	12	8.33	10.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container* / Client Sample ID(s)	*Sample Date*	*Extraction / Preparation*			*Analysis*		
		Date extracted	Due for extraction	Evaluation	*Date analysed*	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055)							
0902_SD022_221103, 0902_SD024_221103, 0902_SD035_221103, 0902_QC102_221103	**03-Nov-2022**	**----**	----	----	**08-Nov-2022**	17-Nov-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0902_SD022_221103, 0902_SD024_221103, 0902_SD035_221103, 0902_QC102_221103	**03-Nov-2022**	**07-Nov-2022**	02-May-2023	✓	**09-Nov-2022**	17-Dec-2022	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X)							
0902_SD022_221103, 0902_SD024_221103, 0902_SD035_221103, 0902_QC102_221103	**03-Nov-2022**	**07-Nov-2022**	02-May-2023	✓	**09-Nov-2022**	17-Dec-2022	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X)							
0902_SD022_221103, 0902_SD024_221103, 0902_SD035_221103, 0902_QC102_221103	**03-Nov-2022**	**07-Nov-2022**	02-May-2023	✓	**09-Nov-2022**	17-Dec-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X)							
0902_SD022_221103, 0902_SD024_221103, 0902_SD035_221103, 0902_QC102_221103	**03-Nov-2022**	**07-Nov-2022**	02-May-2023	✓	**09-Nov-2022**	17-Dec-2022	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X)							
0902_SD022_221103, 0902_SD024_221103, 0902_SD035_221103, 0902_QC102_221103	**03-Nov-2022**	**07-Nov-2022**	02-May-2023	✓	**09-Nov-2022**	17-Dec-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED037P: Alkalinity by PC Titrator							
Clear Plastic Bottle - Natural (ED037-P)							
0902_MW009_221102, 0902_MW010_221102	**02-Nov-2022**	**----**	----	----	**04-Nov-2022**	16-Nov-2022	✓
Clear Plastic Bottle - Natural (ED037-P)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103	**03-Nov-2022**	**----**	----	----	**04-Nov-2022**	17-Nov-2022	✓
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA							
Clear Plastic Bottle - Natural (ED041G)							
0902_MW009_221102, 0902_MW010_221102	**02-Nov-2022**	**----**	----	----	**03-Nov-2022**	30-Nov-2022	✓
Clear Plastic Bottle - Natural (ED041G)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103	**03-Nov-2022**	**----**	----	----	**03-Nov-2022**	01-Dec-2022	✓
ED045G: Chloride by Discrete Analyser							
Clear Plastic Bottle - Natural (ED045G)							
0902_MW009_221102, 0902_MW010_221102	**02-Nov-2022**	**----**	----	----	**03-Nov-2022**	30-Nov-2022	✓
Clear Plastic Bottle - Natural (ED045G)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103	**03-Nov-2022**	**----**	----	----	**03-Nov-2022**	01-Dec-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED093F: Dissolved Major Cations							
Clear Plastic Bottle - Natural (ED093F)							
0902_MW009_221102, 0902_MW010_221102	**02-Nov-2022**	**----**	----	----	**07-Nov-2022**	09-Nov-2022	✓
Clear Plastic Bottle - Natural (ED093F)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103	**03-Nov-2022**	**----**	----	----	**07-Nov-2022**	10-Nov-2022	✓
Clear Plastic Bottle - Nitric Acid; Filtered (ED093F)							
0902_SW024_221103	**03-Nov-2022**	**----**	----	----	**07-Nov-2022**	01-Dec-2022	✓
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Natural (EG020A-T)							
0902_SW024_221103	**03-Nov-2022**	**07-Nov-2022**	02-May-2023	✓	**07-Nov-2022**	02-May-2023	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)							
0902_MW009_221102, 0902_MW010_221102	**02-Nov-2022**	**07-Nov-2022**	01-May-2023	✓	**07-Nov-2022**	01-May-2023	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103	**03-Nov-2022**	**07-Nov-2022**	02-May-2023	✓	**07-Nov-2022**	02-May-2023	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_MW009_221102, 0902_MW010_221102	**02-Nov-2022**	**----**	----	----	**08-Nov-2022**	30-Nov-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103	**03-Nov-2022**	**----**	----	----	**08-Nov-2022**	01-Dec-2022	✓
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G)							
0902_MW009_221102, 0902_MW010_221102	**02-Nov-2022**	**----**	----	----	**03-Nov-2022**	04-Nov-2022	✓
Clear Plastic Bottle - Natural (EK057G)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103	**03-Nov-2022**	**----**	----	----	**03-Nov-2022**	05-Nov-2022	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW009_221102, 0902_MW010_221102	**02-Nov-2022**	**----**	----	----	**08-Nov-2022**	30-Nov-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103	**03-Nov-2022**	**----**	----	----	**08-Nov-2022**	01-Dec-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK061G)							
0902_MW009_221102, 0902_MW010_221102	**02-Nov-2022**	**08-Nov-2022**	30-Nov-2022	✓	**08-Nov-2022**	30-Nov-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK061G)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103	**03-Nov-2022**	**08-Nov-2022**	01-Dec-2022	✓	**08-Nov-2022**	01-Dec-2022	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_MW009_221102, 0902_MW010_221102	**02-Nov-2022**	**08-Nov-2022**	30-Nov-2022	✓	**08-Nov-2022**	30-Nov-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103	**03-Nov-2022**	**08-Nov-2022**	01-Dec-2022	✓	**08-Nov-2022**	01-Dec-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW007_221102, 0902_MW008_221102, 0902_MW009_221102, 0902_MW010_221102, 0902_MW024_221102, 0902_MW027_221102, 0902_MW028_221102, 0902_MW040_221102, 0902_MW041_221102, 0902_MW042_221102, 0902_MW043_221102, 0902_MW047_221102, 0902_MW048_221102, 0902_MW050_221102, 0902_MW051_221102, 0902_MW052_221102, 0902_MW064_221102, 0902_MW065_221102, 0902_MW066_221102, 0902_QC100_221102, 0902_QC101_221102, 0902_QC300_221102	**02-Nov-2022**	**07-Nov-2022**	01-May-2023	✓	**08-Nov-2022**	01-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103, 0902_QC301_221103	**03-Nov-2022**	**07-Nov-2022**	02-May-2023	✓	**08-Nov-2022**	02-May-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW007_221102, 0902_MW008_221102, 0902_MW009_221102, 0902_MW010_221102, 0902_MW024_221102, 0902_MW027_221102, 0902_MW028_221102, 0902_MW040_221102, 0902_MW041_221102, 0902_MW042_221102, 0902_MW043_221102, 0902_MW047_221102, 0902_MW048_221102, 0902_MW050_221102, 0902_MW051_221102, 0902_MW052_221102, 0902_MW064_221102, 0902_MW065_221102, 0902_MW066_221102, 0902_QC100_221102, 0902_QC101_221102, 0902_QC300_221102	**02-Nov-2022**	**07-Nov-2022**	01-May-2023	✓	**08-Nov-2022**	01-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103, 0902_QC301_221103	**03-Nov-2022**	**07-Nov-2022**	02-May-2023	✓	**08-Nov-2022**	02-May-2023	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0902_MW007_221102, 0902_MW008_221102, 0902_MW009_221102, 0902_MW010_221102, 0902_MW024_221102, 0902_MW027_221102, 0902_MW028_221102, 0902_MW040_221102, 0902_MW041_221102, 0902_MW042_221102, 0902_MW043_221102, 0902_MW047_221102, 0902_MW048_221102, 0902_MW050_221102, 0902_MW051_221102, 0902_MW052_221102, 0902_MW064_221102, 0902_MW065_221102, 0902_MW066_221102, 0902_QC100_221102, 0902_QC101_221102, 0902_QC300_221102	**02-Nov-2022**	**07-Nov-2022**	01-May-2023	✓	**08-Nov-2022**	01-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103, 0902_QC301_221103	**03-Nov-2022**	**07-Nov-2022**	02-May-2023	✓	**08-Nov-2022**	02-May-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW007_221102, 0902_MW008_221102, 0902_MW009_221102, 0902_MW010_221102, 0902_MW024_221102, 0902_MW027_221102, 0902_MW028_221102, 0902_MW040_221102, 0902_MW041_221102, 0902_MW042_221102, 0902_MW043_221102, 0902_MW047_221102, 0902_MW048_221102, 0902_MW050_221102, 0902_MW051_221102, 0902_MW052_221102, 0902_MW064_221102, 0902_MW065_221102, 0902_MW066_221102, 0902_QC100_221102, 0902_QC101_221102, 0902_QC300_221102	**02-Nov-2022**	**07-Nov-2022**	01-May-2023	✓	**08-Nov-2022**	01-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103, 0902_QC301_221103	**03-Nov-2022**	**07-Nov-2022**	02-May-2023	✓	**08-Nov-2022**	02-May-2023	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0902_MW007_221102, 0902_MW008_221102, 0902_MW009_221102, 0902_MW010_221102, 0902_MW024_221102, 0902_MW027_221102, 0902_MW028_221102, 0902_MW040_221102, 0902_MW041_221102, 0902_MW042_221102, 0902_MW043_221102, 0902_MW047_221102, 0902_MW048_221102, 0902_MW050_221102, 0902_MW051_221102, 0902_MW052_221102, 0902_MW064_221102, 0902_MW065_221102, 0902_MW066_221102, 0902_QC100_221102, 0902_QC101_221102, 0902_QC300_221102	**02-Nov-2022**	**07-Nov-2022**	01-May-2023	✓	**08-Nov-2022**	01-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW081_221103, 0902_SW022_221103, 0902_SW024_221103, 0902_SW035_221103, 0902_QC103_221103, 0902_QC104_221103, 0902_QC301_221103	**03-Nov-2022**	**07-Nov-2022**	02-May-2023	✓	**08-Nov-2022**	02-May-2023	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	12	8.33	10.00	×	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	12	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	12	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	12	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Alkalinity by Auto Titrator	ED037-P	2	11	18.18	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	8	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	4	30	13.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	8	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	8	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	4	34	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by Auto Titrator	ED037-P	2	11	18.18	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	8	25.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	30	6.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	8	25.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	6	34	17.65	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	6	34	17.65	15.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	30	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	34	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	34	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	30	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	40	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	34	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	34	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Alkalinity by Auto Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. PC Titrate) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G.The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO3-. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030F. This method is compliant with NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2239683**	Page	: 1 of 18
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 03-Nov-2022
Order number	: 60612562_5.1	Date Analysis Commenced	: 03-Nov-2022
C-O-C number	: 44502	Issue Date	: 11-Nov-2022
Sampler	: JESSICA ROY, MAT JENKINS		
Site	: Richmond day 1		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 33		
No. of samples analysed	: 33		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4688725)									
EM2221285-055	Anonymous	EA055: Moisture Content	----	0.1	%	19.8	20.2	1.9	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4685100)									
ES2239677-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2239704-004	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4685100)									
ES2239677-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4685100) - continued									
ES2239677-001	Anonymous	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2239704-004	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4685100)									
ES2239677-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2239704-004	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4685100)									

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4685100) - continued									
ES2239677-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2239704-004	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED037P: Alkalinity by PC Titrator (QC Lot: 4681698)									
ES2239683-003	0902_MW009_221102	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	115	114	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	115	114	0.0	0% - 20%
WN2213760-002	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	46	46	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	46	46	0.0	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4679764)									
ES2239683-003	0902_MW009_221102	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	12	12	0.0	0% - 50%
ED045G: Chloride by Discrete Analyser (QC Lot: 4679765)									
ES2239683-003	0902_MW009_221102	ED045G: Chloride	16887-00-6	1	mg/L	1900	1890	0.5	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 4685152)									
ES2239683-024	0902_SW022_221103	ED093F: Calcium	7440-70-2	1	mg/L	28	28	0.0	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	14	14	0.0	0% - 50%
		ED093F: Sodium	7440-23-5	1	mg/L	89	86	3.6	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	6	6	0.0	No Limit
ES2239498-001	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	6	5	24.9	No Limit
		ED093F: Magnesium	7439-95-4	1	mg/L	2	2	0.0	No Limit
		ED093F: Sodium	7440-23-5	1	mg/L	17	17	0.0	0% - 50%
		ED093F: Potassium	7440-09-7	1	mg/L	2	1	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG020T: Total Metals by ICP-MS (QC Lot: 4684277)									
ES2239683-003	0902_MW009_221102	EG020A-T: Manganese	7439-96-5	0.001	mg/L	2.40	2.42	0.6	0% - 20%
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	0.0	No Limit
EW2205015-017	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	0.045	0.048	8.3	0% - 20%
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	1.33	1.40	5.4	0% - 20%
		EG020A-T: Iron	7439-89-6	0.05	mg/L	1.65	1.74	5.1	0% - 20%
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 4686280)									
ES2239580-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	1080	1060	1.6	0% - 20%
ES2239656-002	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.14	0.14	0.0	0% - 50%
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4679766)									
ES2239683-003	0902_MW009_221102	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	0.01	0.02	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4686279)									
ES2239580-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2239656-002	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.91	0.91	0.0	0% - 20%
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4686281)									
EW2205110-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	1.68	1.69	0.6	0% - 20%
ES2239831-010	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.18	0.18	0.0	0% - 50%
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 4686275)									
ES2239538-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	7.3	7.6	5.3	0% - 20%
ES2239656-002	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	1.7	1.6	6.6	0% - 50%
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 4686277)									
EW2205110-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.7	0.5	31.0	No Limit
ES2239683-031	0902_QC104_221103	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	1.0	0.7	31.5	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4686276)									
ES2239538-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	3.54	3.65	3.0	0% - 20%
ES2239656-002	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.30	0.31	0.0	0% - 20%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4686278)									
EW2205110-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.01	<0.01	0.0	No Limit
ES2239683-031	0902_QC104_221103	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.17	0.17	0.0	0% - 50%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4683649)									
ES2239683-009	0902_MW041_221102	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.03	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.03	0.04	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2239683-018	0902_MW065_221102	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.39	0.39	0.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4683649) - continued									
ES2239683-018	0902_MW065_221102	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.05	0.05	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4684045)									
ES2239683-024	0902_SW022_221103	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.20	0.20	0.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.05	0.05	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2239683-031	0902_QC104_221103	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.19	0.20	5.1	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.04	0.05	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4683649)									
ES2239683-009	0902_MW041_221102	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2239683-018	0902_MW065_221102	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.02	0.03	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4684045)									
ES2239683-024	0902_SW022_221103	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.08	0.07	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2239683-031	0902_QC104_221103	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.07	0.07	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4683649)									
ES2239683-009	0902_MW041_221102	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2239683-018	0902_MW065_221102	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4683649) - continued									
ES2239683-018	0902_MW065_221102	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4684045)									
ES2239683-024	0902_SW022_221103	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2239683-031	0902_QC104_221103	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4683649)									
ES2239683-009	0902_MW041_221102	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4683649) - continued									
ES2239683-009	0902_MW041_221102	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2239683-018	0902_MW065_221102	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4684045)									
ES2239683-024	0902_SW022_221103	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2239683-031	0902_QC104_221103	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4683649)									
ES2239683-009	0902_MW041_221102	EP231X: Sum of PFAS	----	0.01	µg/L	0.05	0.07	33.3	No Limit
ES2239683-018	0902_MW065_221102	EP231X: Sum of PFAS	----	0.01	µg/L	0.54	0.55	1.8	0% - 20%
EP231P: PFAS Sums (QC Lot: 4684045)									
ES2239683-024	0902_SW022_221103	EP231X: Sum of PFAS	----	0.01	µg/L	0.42	0.41	2.4	0% - 20%
ES2239683-031	0902_QC104_221103	EP231X: Sum of PFAS	----	0.01	µg/L	0.39	0.41	5.0	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4685100)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	78.8	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.4	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	72.0	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.0	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	79.6	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	83.6	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4685100)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	79.4	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.0	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.8	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.8	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.8	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.8	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	90.8	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	79.2	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	88.8	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	101	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4685100)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	90.9	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	107	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	80.0	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	89.1	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	116	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4685100)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	80.8	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	108	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	76.0	65.0	137

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4685100) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	72.8	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
ED037P: Alkalinity by PC Titrator (QCLot: 4681698)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	85.1	81.0	111
				----	50 mg/L	98.2	80.0	120
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4679764)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	99.6	82.0	122
				<1	500 mg/L	96.9	82.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 4679765)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	99.0	80.9	127
				<1	1000 mg/L	96.3	80.9	127
ED093F: Dissolved Major Cations (QCLot: 4685152)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	97.0	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	104	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	101	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	99.3	85.0	113
EG020T: Total Metals by ICP-MS (QCLot: 4684277)								
EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	98.2	82.0	120
EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	92.9	85.0	113
EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	96.6	85.0	117
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4686280)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	96.2	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4679766)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	100.0	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4686279)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	105	91.0	113
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4686281)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	104	91.0	113
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4686275)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	10 mg/L	94.9	69.0	101
				<0.1	1 mg/L	91.1	70.0	118
				<0.1	5 mg/L	95.8	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4686277)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4686277) - continued								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	10 mg/L	97.9	69.0	101
				<0.1	1 mg/L	98.2	70.0	118
				<0.1	5 mg/L	98.4	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4686276)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	99.3	71.3	126
				<0.01	0.442 mg/L	104	71.3	126
				<0.01	1 mg/L	104	71.3	126
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4686278)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	99.1	71.3	126
				<0.01	0.442 mg/L	102	71.3	126
				<0.01	1 mg/L	105	71.3	126
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4683649)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	103	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	103	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	96.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	97.4	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	118	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	122	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4684045)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	95.0	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	88.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	99.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	95.2	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	86.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4683649)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	83.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	95.4	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	114	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	127	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	126	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	126	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	109	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	119	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	113	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4684045)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4684045) - continued								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	100	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	117	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	115	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	106	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	125	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	106	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	117	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4683649)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	79.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	89.2	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	92.6	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	86.2	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	87.3	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	101	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	108	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4684045)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	116	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	124	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	118	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	99.9	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	112	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	124	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	121	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4683649)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	104	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	125	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	111	67.0	138

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4683649) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	90.6	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4684045)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	102	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	102	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	101	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	86.0	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4685100)							
ES2239677-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	80.8	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	98.0	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	77.2	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	91.6	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	90.4	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	98.4	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4685100)							
ES2239677-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	88.1	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	89.2	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	98.4	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	93.6	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	98.0	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	106	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	98.4	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	128	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	89.2	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	94.0	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	113	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4685100)							
ES2239677-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	128	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	104	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	107	69.8	131

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4685100) - continued							
ES2239677-001	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	93.3	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	94.4	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	120	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	127	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4685100)							
ES2239677-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	98.8	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	91.2	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	94.8	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	93.6	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4679764)							
ES2239683-003	0902_MW009_221102	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	10 mg/L	95.5	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4679765)							
ES2239683-003	0902_MW009_221102	ED045G: Chloride	16887-00-6	50 mg/L	# Not Determined	70.0	130
EG020T: Total Metals by ICP-MS (QCLot: 4684277)							
ES2239683-004	0902_MW010_221102	EG020A-T: Manganese	7439-96-5	1 mg/L	90.4	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4686280)							
ES2239580-001	Anonymous	EK055G: Ammonia as N	7664-41-7	1 mg/L	# Not Determined	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4679766)							
ES2239683-003	0902_MW009_221102	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	101	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4686279)							
ES2239580-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	104	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4686281)							
ES2239831-010	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	109	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4686275)							
ES2239580-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	# Not Determined	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4686277)							
ES2239683-031	0902_QC104_221103	EK061G: Total Kjeldahl Nitrogen as N	----	25 mg/L	97.7	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4686276)							
ES2239580-001	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	# Not Determined	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4686278)							
ES2239684-001	Anonymous	EK067G: Total Phosphorus as P	----	2 mg/L	104	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4683649)							
ES2239683-011	0902_MW043_221102	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	94.6	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	117	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	104	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	106	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	98.2	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	107	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4684045)							
ES2239683-025	0902_SW024_221103	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	92.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	111	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	96.4	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	103	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	99.8	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	96.0	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4683649)							
ES2239683-011	0902_MW043_221102	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	102	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	117	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	126	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	116	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	111	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	118	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	107	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	102	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	118	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	98.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	117	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4684045)							
ES2239683-025	0902_SW024_221103	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	96.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	115	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	110	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	110	72.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4684045) - continued							
ES2239683-025	0902_SW024_221103	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	110	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	111	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	99.6	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	124	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	108	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	100	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	107	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4683649)							
ES2239683-011	0902_MW043_221102	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	116	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	112	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	114	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	122	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	108	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	121	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	112	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4684045)							
ES2239683-025	0902_SW024_221103	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	116	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	125	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	125	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	91.6	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	109	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	125	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	128	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4683649)							
ES2239683-011	0902_MW043_221102	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	99.4	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	105	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	104	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	125	71.4	144

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4684045)							
ES2239683-025	0902_SW024_221103	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	89.0	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	110	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	99.8	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	78.0	71.4	144

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2239683**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Sepan.Mahamad@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 4
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 44502	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Richmond day 1		
Sampler	: JESSICA ROY, MAT JENKINS		

Dates

Date Samples Received	: 03-Nov-2022 15:30	Issue Date	: 03-Nov-2022
Client Requested Due Date	: 10-Nov-2022	Scheduled Reporting Date	: **10-Nov-2022**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Not Available
No. of coolers/boxes	: 2	Temperature	: 3.5'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 33 / 33

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

Method Sample ID	Sample Container Received	Preferred Sample Container for Analysis
Total Metals by ICP-MS - Suite A : EG020A-T		
0902_SW024_221103	- Clear Plastic Bottle - Natural	- Clear Plastic Bottle - Nitric Acid; Unfiltered

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2239683-021	03-Nov-2022 10:15	0902_SD022_221103	✓	✓
ES2239683-022	03-Nov-2022 11:40	0902_SD024_221103	✓	✓
ES2239683-023	03-Nov-2022 10:55	0902_SD035_221103	✓	✓
ES2239683-029	03-Nov-2022 10:15	0902_QC102_221103	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
ES2239683-001	02-Nov-2022 13:33	0902_MW007_221102		✓		
ES2239683-002	02-Nov-2022 09:14	0902_MW008_221102		✓		
ES2239683-003	02-Nov-2022 09:40	0902_MW009_221102	✓	✓	✓	✓
ES2239683-004	02-Nov-2022 12:07	0902_MW010_221102	✓	✓	✓	✓
ES2239683-005	02-Nov-2022 16:10	0902_MW024_221102		✓		
ES2239683-006	02-Nov-2022 15:43	0902_MW027_221102		✓		
ES2239683-007	02-Nov-2022 15:17	0902_MW028_221102		✓		
ES2239683-008	02-Nov-2022 08:43	0902_MW040_221102		✓		
ES2239683-009	02-Nov-2022 12:24	0902_MW041_221102		✓		
ES2239683-010	02-Nov-2022 12:50	0902_MW042_221102		✓		
ES2239683-011	02-Nov-2022 13:14	0902_MW043_221102		✓		
ES2239683-012	02-Nov-2022 14:09	0902_MW047_221102		✓		
ES2239683-013	02-Nov-2022 13:51	0902_MW048_221102		✓		
ES2239683-014	02-Nov-2022 14:57	0902_MW050_221102		✓		
ES2239683-015	02-Nov-2022 14:44	0902_MW051_221102		✓		
ES2239683-016	02-Nov-2022 14:24	0902_MW052_221102		✓		
ES2239683-017	02-Nov-2022 11:25	0902_MW064_221102		✓		

			WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
ES2239683-018	02-Nov-2022 10:56	0902_MW065_221102		✓		
ES2239683-019	02-Nov-2022 10:36	0902_MW066_221102		✓		
ES2239683-020	03-Nov-2022 09:40	0902_MW081_221103	✓	✓	✓	✓
ES2239683-024	03-Nov-2022 10:20	0902_SW022_221103	✓	✓	✓	✓
ES2239683-025	03-Nov-2022 11:40	0902_SW024_221103	✓	✓	✓	✓
ES2239683-026	03-Nov-2022 11:02	0902_SW035_221103	✓	✓	✓	✓
ES2239683-027	02-Nov-2022 09:05	0902_QC100_221102		✓		
ES2239683-028	02-Nov-2022 16:10	0902_QC101_221102		✓		
ES2239683-030	03-Nov-2022 09:45	0902_QC103_221103	✓	✓	✓	✓
ES2239683-031	03-Nov-2022 10:25	0902_QC104_221103	✓	✓	✓	✓
ES2239683-032	03-Nov-2022 12:22	0902_QC301_221103		✓		
ES2239683-033	02-Nov-2022 18:00	0902_QC300_221102		✓		

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

ANDREW SPOOR

- *AU Certificate of Analysis - NATA (COA)	Email	Andrew.Spoor@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Andrew.Spoor@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Andrew.Spoor@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Andrew.Spoor@aecom.com
- Chain of Custody (CoC) (COC)	Email	Andrew.Spoor@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Andrew.Spoor@aecom.com
- EDI Format - XTab (XTAB)	Email	Andrew.Spoor@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Andrew.Spoor@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Geoff.Tredinnick@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	mat.jenkins@aecom.com

NICOLA TOMLIN

- *AU Certificate of Analysis - NATA (COA)	Email	nicola.tomlin@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	nicola.tomlin@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	nicola.tomlin@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	nicola.tomlin@aecom.com
- Chain of Custody (CoC) (COC)	Email	nicola.tomlin@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	nicola.tomlin@aecom.com
- EDI Format - XTab (XTAB)	Email	nicola.tomlin@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	nicola.tomlin@aecom.com

CHAIN OF CUSTODY

ALS COC#: 44502 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 03/11/22 1530	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond day 1

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW007_221102		02/11/2022 01:33 PM	Water	ALS: 3 Non ALS: 0	No			X		
002	0902_MW008_221102		02/11/2022 09:14 AM	Water	ALS: 3 Non ALS: 0	No			X		Extra volume for qc samples
003	0902_MW009_221102		02/11/2022 09:40 AM	Water	ALS: 6 Non ALS: 0	No	X				
004	0902_MW010_221102		02/11/2022 12:07 PM	Water	ALS: 6 Non ALS: 0	No	X				
005	0902_MW024_221102		02/11/2022 04:10 PM	Water	ALS: 3 Non ALS: 0	No			X		
006	0902_MW027_221102		02/11/2022 03:43 PM	Water	ALS: 5 Non ALS: 0	No			X		
007	0902_MW028_221102		02/11/2022 03:17 PM	Water	ALS: 3 Non ALS: 0	No			X		
008	0902_MW040_221102		02/11/2022 08:43 AM	Water	ALS: 3 Non ALS: 0	No			X		
009	0902_MW041_221102		02/11/2022 12:24 PM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume

Environmental Division Sydney

Work Order Reference

ES2239683

Telephone : + 61-2-8784 8555

HT

CHAIN OF CUSTODY

(ALS) COC#: **44502** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 03/11/22 1530	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond day 1

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins
PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_MW042_221102		02/11/2022 12:50 PM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
011	0902_MW043_221102		02/11/2022 01:14 PM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
012	0902_MW047_221102		02/11/2022 02:09 PM	Water	ALS: 3 Non ALS: 0	No			X		
013	0902_MW048_221102		02/11/2022 01:51 PM	Water	ALS: 3 Non ALS: 0	No			X		
014	0902_MW050_221102		02/11/2022 02:57 PM	Water	ALS: 3 Non ALS: 0	No			X		
015	0902_MW051_221102		02/11/2022 02:44 PM	Water	ALS: 3 Non ALS: 0	No			X		
016	0902_MW052_221102		02/11/2022 02:24 PM	Water	ALS: 3 Non ALS: 0	No			X		
017	0902_MW064_221102		02/11/2022 11:25 AM	Water	ALS: 5 Non ALS: 0	No			X		
018	0902_MW065_221102		02/11/2022 10:56 AM	Water	ALS: 5 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 44502 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 03/11/22 1930	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond day 1

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0902_MW066_221102		02/11/2022 10:36 AM	Water	ALS: 3 Non ALS: 0	No			X		
020	0902_MW081_221103		03/11/2022 09:40 AM	Water	ALS: 6 Non ALS: 0	No	X				
021	0902_SD022_221103		03/11/2022 10:15 AM	Soil	ALS: 1 Non ALS: 0	No		X			
022	0902_SD024_221103		03/11/2022 11:40 AM	Soil	ALS: 1 Non ALS: 0	No		X			
023	0902_SD035_221103		03/11/2022 10:55 AM	Soil	ALS: 1 Non ALS: 0	No		X			
024	0902_SW022_221103		03/11/2022 10:20 AM	Water	ALS: 8 Non ALS: 0	No	X				Extra volume for lab qc
025	0902_SW024_221103		03/11/2022 11:40 AM	Water	ALS: 11 Non ALS: 0	No	X				extra volume collected for lab qc
026	0902_SW035_221103		03/11/2022 11:02 AM	Water	ALS: 6 Non ALS: 0	No	X				
027	0902_QC100_221102		02/11/2022 09:05 AM	Water	ALS: 3 Non ALS: 0	No			X		

CHAIN OF CUSTODY

(ALS) COC#: 44502 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 03/11/22 1530	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond day 1

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
028	0902_QC101_221102		02/11/2022 04:10 PM	Water	ALS: 3 Non ALS: 0	No			X		
029	0902_QC102_221103		03/11/2022 10:15 AM	Soil	ALS: 1 Non ALS: 0	No		X			
030	0902_QC103_221103		03/11/2022 09:45 AM	Water	ALS: 6 Non ALS: 0	No	X				
031	0902_QC104_221103		03/11/2022 10:25 AM	Water	ALS: 6 Non ALS: 0	No	X				
032	0902_QC301_221103		03/11/2022 12:22 PM	Water	ALS: 7 Non ALS: 0	No			X		
033	0902_QC300_221102		02/11/2022 06:00 PM	Water	ALS: 0 Non ALS: 0	No			X		not scanned but submitted

CHAIN OF CUSTODY

(ALS) COC#: 44502 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 03/11/22 1530	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond day 1

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW007_221102	HDPE (no PTFE)	20 mL	00350821029207	Grey	No	
001	0902_MW007_221102	HDPE (no PTFE)	20 mL	00350821029045	Grey	No	
001	0902_MW007_221102	HDPE (no PTFE)	20 mL	00350821029122	Grey	No	
002	0902_MW008_221102	HDPE (no PTFE)	20 mL	00350821028998	Grey	No	
002	0902_MW008_221102	HDPE (no PTFE)	20 mL	00350821028955	Grey	No	
002	0902_MW008_221102	HDPE (no PTFE)	20 mL	00350821029120	Grey	No	
003	0902_MW009_221102	HDPE (no PTFE)	20 mL	00350821028937	Grey	No	
003	0902_MW009_221102	HDPE (no PTFE)	20 mL	00350821028934	Grey	No	
003	0902_MW009_221102	HDPE (no PTFE)	20 mL	00350821029114	Grey	No	
003	0902_MW009_221102	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522039243	Red	Yes	
003	0902_MW009_221102	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100322003735	Purple	No	
003	0902_MW009_221102	Clear Plastic Bottle - Natural	500 mL	00070121127819	Green	No	
004	0902_MW010_221102	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522039220	Red	Yes	
004	0902_MW010_221102	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100322004026	Purple	No	
004	0902_MW010_221102	HDPE (no PTFE)	20 mL	00350821029036	Grey	No	
004	0902_MW010_221102	HDPE (no PTFE)	20 mL	00350821029130	Grey	No	
004	0902_MW010_221102	HDPE (no PTFE)	20 mL	00350821029127	Grey	No	
004	0902_MW010_221102	Clear Plastic Bottle - Natural	500 mL	00070121127858	Green	No	
005	0902_MW024_221102	HDPE (no PTFE)	20 mL	00350821029132	Grey	No	
005	0902_MW024_221102	HDPE (no PTFE)	20 mL	00350821029153	Grey	No	
005	0902_MW024_221102	HDPE (no PTFE)	20 mL	00350821029004	Grey	No	
006	0902_MW027_221102	HDPE (no PTFE)	20 mL	00350821029215	Grey	No	
006	0902_MW027_221102	HDPE (no PTFE)	20 mL	00350821029156	Grey	No	
006	0902_MW027_221102	HDPE (no PTFE)	20 mL	00350821029161	Grey	No	
006	0902_MW027_221102	HDPE (no PTFE)	20 mL	00350821029082	Grey	No	
006	0902_MW027_221102	HDPE (no PTFE)	20 mL	00350821029179	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 44502 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 03/11/22 1530	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond day 1

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

007	0902_MW028_221102	HDPE (no PTFE)	20 mL	00350821029042	Grey	No	
007	0902_MW028_221102	HDPE (no PTFE)	20 mL	00350821029056	Grey	No	
007	0902_MW028_221102	HDPE (no PTFE)	20 mL	00350821028979	Grey	No	
008	0902_MW040_221102	HDPE (no PTFE)	20 mL	00350821029113	Grey	No	
008	0902_MW040_221102	HDPE (no PTFE)	20 mL	00350821029080	Grey	No	
008	0902_MW040_221102	HDPE (no PTFE)	20 mL	00350821028932	Grey	No	
009	0902_MW041_221102	HDPE (no PTFE)	20 mL	00350821029061	Grey	No	
009	0902_MW041_221102	HDPE (no PTFE)	20 mL	00350821029023	Grey	No	
009	0902_MW041_221102	HDPE (no PTFE)	20 mL	00350821029024	Grey	No	
009	0902_MW041_221102	HDPE (no PTFE)	20 mL	00350821029040	Grey	No	
009	0902_MW041_221102	HDPE (no PTFE)	20 mL	00350821029103	Grey	No	
010	0902_MW042_221102	HDPE (no PTFE)	20 mL	00350821029131	Grey	No	
010	0902_MW042_221102	HDPE (no PTFE)	20 mL	00350821029227	Grey	No	
010	0902_MW042_221102	HDPE (no PTFE)	20 mL	00350821029124	Grey	No	
010	0902_MW042_221102	HDPE (no PTFE)	20 mL	00350821029185	Grey	No	
010	0902_MW042_221102	HDPE (no PTFE)	20 mL	00350821029142	Grey	No	
011	0902_MW043_221102	HDPE (no PTFE)	20 mL	00350821029007	Grey	No	
011	0902_MW043_221102	HDPE (no PTFE)	20 mL	00350821029107	Grey	No	
011	0902_MW043_221102	HDPE (no PTFE)	20 mL	00350821029159	Grey	No	
011	0902_MW043_221102	HDPE (no PTFE)	20 mL	00350821028969	Grey	No	
011	0902_MW043_221102	HDPE (no PTFE)	20 mL	00350821028945	Grey	No	
012	0902_MW047_221102	HDPE (no PTFE)	20 mL	00350821029197	Grey	No	
012	0902_MW047_221102	HDPE (no PTFE)	20 mL	00350821029066	Grey	No	
012	0902_MW047_221102	HDPE (no PTFE)	20 mL	00350821029101	Grey	No	
013	0902_MW048_221102	HDPE (no PTFE)	20 mL	00350821028993	Grey	No	
013	0902_MW048_221102	HDPE (no PTFE)	20 mL	00350821029085	Grey	No	
013	0902_MW048_221102	HDPE (no PTFE)	20 mL	00350821028946	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 44502 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 03/11/22 1530	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond day 1

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

014	0902_MW050_221102	HDPE (no PTFE)	20 mL	00350821029194	Grey	No	
014	0902_MW050_221102	HDPE (no PTFE)	20 mL	00350821029222	Grey	No	
014	0902_MW050_221102	HDPE (no PTFE)	20 mL	00350821029200	Grey	No	
015	0902_MW051_221102	HDPE (no PTFE)	20 mL	00350821029058	Grey	No	
015	0902_MW051_221102	HDPE (no PTFE)	20 mL	00350821029163	Grey	No	
015	0902_MW051_221102	HDPE (no PTFE)	20 mL	00350821029203	Grey	No	
016	0902_MW052_221102	HDPE (no PTFE)	20 mL	00350821029071	Grey	No	
016	0902_MW052_221102	HDPE (no PTFE)	20 mL	00350821029083	Grey	No	
016	0902_MW052_221102	HDPE (no PTFE)	20 mL	00350821029031	Grey	No	
017	0902_MW064_221102	HDPE (no PTFE)	20 mL	00350821028980	Grey	No	
017	0902_MW064_221102	HDPE (no PTFE)	20 mL	00350821028984	Grey	No	
017	0902_MW064_221102	HDPE (no PTFE)	20 mL	00350821028935	Grey	No	
017	0902_MW064_221102	HDPE (no PTFE)	20 mL	00350821028942	Grey	No	
017	0902_MW064_221102	HDPE (no PTFE)	20 mL	00350821029139	Grey	No	
018	0902_MW065_221102	HDPE (no PTFE)	20 mL	00350821029049	Grey	No	
018	0902_MW065_221102	HDPE (no PTFE)	20 mL	00350821029137	Grey	No	
018	0902_MW065_221102	HDPE (no PTFE)	20 mL	00350821029141	Grey	No	
018	0902_MW065_221102	HDPE (no PTFE)	20 mL	00350821029216	Grey	No	
018	0902_MW065_221102	HDPE (no PTFE)	20 mL	00350821029060	Grey	No	
019	0902_MW066_221102	HDPE (no PTFE)	20 mL	00350821029208	Grey	No	
019	0902_MW066_221102	HDPE (no PTFE)	20 mL	00350821029046	Grey	No	
019	0902_MW066_221102	HDPE (no PTFE)	20 mL	00350821029224	Grey	No	
020	0902_MW081_221103	Clear Plastic Bottle - Natural	500 mL	00070121127833	Green	No	
020	0902_MW081_221103	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100322003946	Purple	No	
020	0902_MW081_221103	HDPE (no PTFE)	20 mL	00350821028992	Grey	No	
020	0902_MW081_221103	HDPE (no PTFE)	20 mL	00350821029136	Grey	No	
020	0902_MW081_221103	HDPE (no PTFE)	20 mL	00350821029065	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 44502 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond day 1

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 03/11/21 1530	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

020	0902_MW081_221103	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522039337	Red	Yes	
021	0902_SD022_221103	HDPE Soil Jar	200 mL	00620322023556	Grey	No	
022	0902_SD024_221103	HDPE Soil Jar	200 mL	00620322023496	Grey	No	
023	0902_SD035_221103	HDPE Soil Jar	200 mL	00620322023527	Grey	No	
024	0902_SW022_221103	Clear Plastic Bottle - Natural	500 mL	00070121127860	Green	No	
024	0902_SW022_221103	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100322003804	Purple	No	
024	0902_SW022_221103	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522039227	Red	Yes	
024	0902_SW022_221103	HDPE (no PTFE)	20 mL	00350821028962	Grey	No	
024	0902_SW022_221103	HDPE (no PTFE)	20 mL	00350821029183	Grey	No	
024	0902_SW022_221103	HDPE (no PTFE)	20 mL	00350821029138	Grey	No	
024	0902_SW022_221103	HDPE (no PTFE)	20 mL	00350821029184	Grey	No	
024	0902_SW022_221103	HDPE (no PTFE)	20 mL	00350821029013	Grey	No	
025	0902_SW024_221103	Clear Plastic Bottle - Natural	500 mL	00070121127859	Green	No	
025	0902_SW024_221103	Clear Plastic Bottle - Natural	500 mL	00070121127822	Green	No	
025	0902_SW024_221103	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120522037777	Red	Yes	
025	0902_SW024_221103	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00120522038039	Red	Yes	
025	0902_SW024_221103	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522037906	Purple	No	
025	0902_SW024_221103	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522037914	Purple	No	
025	0902_SW024_221103	HDPE (no PTFE)	20 mL	00350522040090	Grey	No	
025	0902_SW024_221103	HDPE (no PTFE)	20 mL	00350522039628	Grey	No	
025	0902_SW024_221103	HDPE (no PTFE)	20 mL	00350522039839	Grey	No	
025	0902_SW024_221103	HDPE (no PTFE)	20 mL	00350522040185	Grey	No	
025	0902_SW024_221103	HDPE (no PTFE)	20 mL	00350522040224	Grey	No	
026	0902_SW035_221103	HDPE (no PTFE)	20 mL	00350522040186	Grey	No	
026	0902_SW035_221103	HDPE (no PTFE)	20 mL	00350821029218	Grey	No	
026	0902_SW035_221103	HDPE (no PTFE)	20 mL	00350522040050	Grey	No	
026	0902_SW035_221103	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522037926	Purple	No	

CHAIN OF CUSTODY

(ALS) COC#: 44502 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 03/11/22 1830	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond day 1

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins
PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

026	0902_SW035_221103	Clear Plastic Bottle - Natural	500 mL	00070121127864	Green	No	
026	0902_SW035_221103	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522038122	Red	Yes	
027	0902_QC100_221102	HDPE (no PTFE)	20 mL	00350821028944	Grey	No	
027	0902_QC100_221102	HDPE (no PTFE)	20 mL	00350821028966	Grey	No	
027	0902_QC100_221102	HDPE (no PTFE)	20 mL	00350821028981	Grey	No	
028	0902_QC101_221102	HDPE (no PTFE)	20 mL	00350821029055	Grey	No	
028	0902_QC101_221102	HDPE (no PTFE)	20 mL	00350821029210	Grey	No	
028	0902_QC101_221102	HDPE (no PTFE)	20 mL	00350821029180	Grey	No	
029	0902_QC102_221103	HDPE Soil Jar	200 mL	00620322023540	Grey	No	
030	0902_QC103_221103	Clear Plastic Bottle - Natural	500 mL	00070121127848	Green	No	
030	0902_QC103_221103	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100322003796	Purple	No	
030	0902_QC103_221103	HDPE (no PTFE)	20 mL	00350821028978	Grey	No	
030	0902_QC103_221103	HDPE (no PTFE)	20 mL	00350821029051	Grey	No	
030	0902_QC103_221103	HDPE (no PTFE)	20 mL	00350821029174	Grey	No	
030	0902_QC103_221103	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522039249	Red	Yes	
031	0902_QC104_221103	Clear Plastic Bottle - Natural	500 mL	00070121127849	Green	No	
031	0902_QC104_221103	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522037919	Purple	No	
031	0902_QC104_221103	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522038077	Red	Yes	
031	0902_QC104_221103	HDPE (no PTFE)	20 mL	00350821029146	Grey	No	
031	0902_QC104_221103	HDPE (no PTFE)	20 mL	00350821029064	Grey	No	
031	0902_QC104_221103	HDPE (no PTFE)	20 mL	00350821029074	Grey	No	
032	0902_QC301_221103	Clear Plastic Bottle - Natural	500 mL	00070121127827	Green	No	
032	0902_QC301_221103	HDPE (no PTFE)	20 mL	00350821029001	Grey	No	
032	0902_QC301_221103	HDPE (no PTFE)	20 mL	00350821029119	Grey	No	
032	0902_QC301_221103	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522018497	Purple	No	
032	0902_QC301_221103	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522038273	Red	Yes	
032	0902_QC301_221103	HDPE (no PTFE)	20 mL	00350821029068	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 44502 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 03/11/22 1430	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: Richmond day 1

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

032	0902_QC301_221103	HDPE (no PTFE)	20 mL	00350821029166	Grey	No	

Total Bottle Count: ALS: 135, Non ALS: 0

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2240328**	Page	: 1 of 35
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 08-Nov-2022 17:00
Order number	: 60612562_5.1	Date Analysis Commenced	: 09-Nov-2022
C-O-C number	: 44713	Issue Date	: 16-Nov-2022 13:52
Sampler	: JESSICA ROY, MAT JENKINS		
Site	: 0902_221108		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 52		
No. of samples analysed	: 52		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO2 and Fluoride to the Anions.
- EG020: Bromine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- EP231X: PFAS results for sample #44, #46 confirmed by re-extraction and re-analysis.
- EP231X: Particular samples required dilution due to sample matrix . LOR values have been adjusted accordingly.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: DRINKING WATER (Matrix: WATER)				Sample ID	0902_MW026_221107	----	----	----	----
				Sampling date / time	07-Nov-2022 11:47	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2240328-006	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.36**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.40**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**2.35**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.09**	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.60**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.06**	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.36**	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.06**	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.10**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: DRINKING WATER (Matrix: WATER)				Sample ID	0902_MW026_221107	----	----	----	----
				Sampling date / time	07-Nov-2022 11:47	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2240328-006	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**4.38**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**2.95**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**3.89**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**102**	----	----	----	----
13C8-PFOA	----	0.02	%		**96.5**	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW020_221108	0902_MW021_221108	0902_MW022_221108	0902_MW023_221108	0902_MW025_221107
				Sampling date / time	08-Nov-2022 11:46	08-Nov-2022 11:19	08-Nov-2022 10:00	08-Nov-2022 10:42	07-Nov-2022 10:39
Compound	CAS Number	LOR	Unit		ES2240328-001	ES2240328-002	ES2240328-003	ES2240328-004	ES2240328-005
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	<1	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	<1	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	482	----	----
Total Alkalinity as CaCO3	----	1	mg/L		----	----	482	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	39	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	1090	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	131	----	----
Magnesium	7439-95-4	1	mg/L		----	----	105	----	----
Sodium	7440-23-5	1	mg/L		----	----	514	----	----
Potassium	7440-09-7	1	mg/L		----	----	2	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	<0.01	----	----
Manganese	7439-96-5	0.001	mg/L		----	----	0.943	----	----
Iron	7439-89-6	0.05	mg/L		----	----	3.85	----	----
Bromine	7726-95-6	0.1	mg/L		----	----	4.2	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	0.21	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	<0.01	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	0.03	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	0.03	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	----	0.5	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	----	0.5	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	0.82	----	----
EN055: Ionic Balance									

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW020_221108	0902_MW021_221108	0902_MW022_221108	0902_MW023_221108	0902_MW025_221107
				Sampling date / time	08-Nov-2022 11:46	08-Nov-2022 11:19	08-Nov-2022 10:00	08-Nov-2022 10:42	07-Nov-2022 10:39
					ES2240328-001	ES2240328-002	ES2240328-003	ES2240328-004	ES2240328-005
					Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued									
ø **Total Anions**	----	0.01	meq/L		----	----	**41.2**	----	----
ø **Total Cations**	----	0.01	meq/L		----	----	**37.6**	----	----
ø **Ionic Balance**	----	0.01	%		----	----	**4.57**	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.38**	**0.12**	**0.28**	**0.04**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.44**	**0.18**	**0.34**	**0.04**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**1.89**	**2.88**	**2.39**	**0.11**	**0.05**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.11**	**0.07**	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.08**	**3.99**	**1.24**	**0.02**	**0.01**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.1**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.17**	**0.06**	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.06**	**0.53**	**0.32**	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.14**	**0.04**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.01**	**0.40**	**0.07**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.04**	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW020_221108	0902_MW021_221108	0902_MW022_221108	0902_MW023_221108	0902_MW025_221107
				Sampling date / time	08-Nov-2022 11:46	08-Nov-2022 11:19	08-Nov-2022 10:00	08-Nov-2022 10:42	07-Nov-2022 10:39
Compound	CAS Number	LOR	Unit		ES2240328-001	ES2240328-002	ES2240328-003	ES2240328-004	ES2240328-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**2.86**	**8.66**	**4.81**	**0.21**	**0.06**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.97**	**6.87**	**3.63**	**0.13**	**0.06**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**2.42**	**8.33**	**4.40**	**0.17**	**0.06**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**99.8**	**98.3**	**97.5**	**97.5**	**110**
13C8-PFOA	----	0.02	%		**93.4**	**88.6**	**95.3**	**89.5**	**96.8**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW036_221108	0902_MW056_221107	0902_MW059_221107	0902_MW060_221107	0902_MW061_221107
				Sampling date / time	08-Nov-2022 12:18	07-Nov-2022 08:51	07-Nov-2022 09:08	07-Nov-2022 09:55	07-Nov-2022 10:10
					ES2240328-007	ES2240328-008	ES2240328-009	ES2240328-010	ES2240328-011
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.27**	<0.02	**3.52**	<0.02	**0.06**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.29**	<0.02	**2.90**	<0.02	**0.05**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**1.57**	**0.01**	**5.01**	**0.18**	**0.48**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.03**	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.13**	**0.02**	**0.10**	**0.23**	**0.40**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.6**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.05**	<0.02	**0.80**	**0.03**	**0.08**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.27**	<0.02	**4.22**	**0.07**	**0.16**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.03**	<0.02	**0.47**	<0.02	**0.05**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.04**	<0.01	**0.03**	**0.04**	**0.06**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW036_221108	0902_MW056_221107	0902_MW059_221107	0902_MW060_221107	0902_MW061_221107
				Sampling date / time	08-Nov-2022 12:18	07-Nov-2022 08:51	07-Nov-2022 09:08	07-Nov-2022 09:55	07-Nov-2022 10:10
Compound	CAS Number	LOR	Unit		ES2240328-007	ES2240328-008	ES2240328-009	ES2240328-010	ES2240328-011
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**2.68**	**0.03**	**17.6**	**0.55**	**1.34**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.70**	**0.03**	**5.11**	**0.41**	**0.88**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**2.36**	**0.03**	**14.8**	**0.55**	**1.29**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**104**	**104**	**111**	**107**	**104**
13C8-PFOA	----	0.02	%		**94.1**	**94.6**	**92.4**	**94.6**	**87.8**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW062_221103	0902_MW063_221103	0902_MW067_221103	0902_MW068_221103	0902_MW069_221103
				Sampling date / time	03-Nov-2022 15:56	03-Nov-2022 15:44	03-Nov-2022 14:55	03-Nov-2022 13:55	03-Nov-2022 15:14
					ES2240328-012	ES2240328-013	ES2240328-014	ES2240328-015	ES2240328-016
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**1.66**	<0.02	**0.41**	**0.08**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**2.28**	<0.02	**0.66**	**0.05**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.12**	**11.2**	**0.04**	**6.64**	**0.38**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.65**	<0.02	**0.23**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.57**	**4.43**	**0.02**	**1.75**	**0.60**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.4**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.10**	**0.65**	<0.02	**0.14**	**0.02**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.07**	**3.20**	<0.02	**0.71**	**0.06**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.02**	**0.45**	<0.02	**0.10**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.55**	<0.01	**0.25**	**0.03**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW062_221103	0902_MW063_221103	0902_MW067_221103	0902_MW068_221103	0902_MW069_221103
				Sampling date / time	03-Nov-2022 15:56	03-Nov-2022 15:44	03-Nov-2022 14:55	03-Nov-2022 13:55	03-Nov-2022 15:14
					ES2240328-012	ES2240328-013	ES2240328-014	ES2240328-015	ES2240328-016
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.88**	**25.5**	**0.06**	**10.9**	**1.22**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.69**	**15.6**	**0.06**	**8.39**	**0.98**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.88**	**22.5**	**0.06**	**10.0**	**1.17**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**99.6**	**90.6**	**97.8**	**95.3**	**95.0**
13C8-PFOA	----	0.02	%		**93.9**	**89.2**	**94.7**	**92.4**	**90.9**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW070_221103	0902_MW071_221103	0902_MW075_221108	0902_MW078_221108	0902_MW079_221108
				Sampling date / time	03-Nov-2022 14:25	03-Nov-2022 14:36	08-Nov-2022 13:18	08-Nov-2022 13:55	08-Nov-2022 15:10
Compound	CAS Number	LOR	Unit		ES2240328-017	ES2240328-018	ES2240328-019	ES2240328-020	ES2240328-021
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	<1	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	<1	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	86	----	----
Total Alkalinity as CaCO3	----	1	mg/L		----	----	86	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	7	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	97	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	12	----	----
Magnesium	7439-95-4	1	mg/L		----	----	10	----	----
Sodium	7440-23-5	1	mg/L		----	----	67	----	----
Potassium	7440-09-7	1	mg/L		----	----	1	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	0.03	----	----
Manganese	7439-96-5	0.001	mg/L		----	----	0.298	----	----
Iron	7439-89-6	0.05	mg/L		----	----	0.05	----	----
Bromine	7726-95-6	0.1	mg/L		----	----	0.9	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	<0.01	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	0.13	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	3.14	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	3.27	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	----	1.1	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	----	4.4	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	0.10	----	----
EN055: Ionic Balance									

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW070_221103	0902_MW071_221103	0902_MW075_221108	0902_MW078_221108	0902_MW079_221108
				Sampling date / time	03-Nov-2022 14:25	03-Nov-2022 14:36	08-Nov-2022 13:18	08-Nov-2022 13:55	08-Nov-2022 15:10
					ES2240328-017	ES2240328-018	ES2240328-019	ES2240328-020	ES2240328-021
					Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued									
ø **Total Anions**	----	0.01	meq/L		----	----	**4.60**	----	----
ø **Total Cations**	----	0.01	meq/L		----	----	**4.36**	----	----
ø **Ionic Balance**	----	0.01	%		----	----	**2.66**	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.13**	**0.06**	<0.02	**0.08**	**0.16**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.07**	**0.04**	<0.02	**0.10**	**0.18**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.53**	**0.32**	**0.01**	**0.67**	**1.64**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.03**	**0.02**	<0.02	<0.02	**0.04**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**1.24**	**1.08**	<0.01	**0.03**	**1.44**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**0.1**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.12**	**0.06**	<0.02	**0.06**	**0.06**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.17**	**0.09**	<0.02	**0.16**	**0.22**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.06**	**0.04**	<0.02	<0.02	**0.03**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.06**	**0.04**	<0.01	**0.01**	**0.06**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW070_221103	0902_MW071_221103	0902_MW075_221108	0902_MW078_221108	0902_MW079_221108
				Sampling date / time	03-Nov-2022 14:25	03-Nov-2022 14:36	08-Nov-2022 13:18	08-Nov-2022 13:55	08-Nov-2022 15:10
Compound	CAS Number	LOR	Unit		ES2240328-017	ES2240328-018	ES2240328-019	ES2240328-020	ES2240328-021
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**2.41**	**1.75**	**0.01**	**1.21**	**3.83**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.77**	**1.40**	**0.01**	**0.70**	**3.08**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**2.31**	**1.69**	**0.01**	**1.11**	**3.61**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**91.6**	**95.9**	**92.0**	**95.8**	**101**
13C8-PFOA	----	0.02	%		**93.0**	**90.7**	**89.2**	**95.0**	**96.3**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW080_221108	0902_MW091_221107	0902_MW092_221107	0902_MW106_221108	0902_MW109_221108
				Sampling date / time	08-Nov-2022 14:29	07-Nov-2022 15:40	07-Nov-2022 15:27	08-Nov-2022 14:30	08-Nov-2022 09:15
Compound	CAS Number	LOR	Unit		ES2240328-022	ES2240328-023	ES2240328-024	ES2240328-025	ES2240328-026
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	<1	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	<1	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	36	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L		----	36	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	24	----	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	9	----	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	12	----	----	----
Magnesium	7439-95-4	1	mg/L		----	6	----	----	----
Sodium	7440-23-5	1	mg/L		----	13	----	----	----
Potassium	7440-09-7	1	mg/L		----	7	----	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	0.18	----	----	----
Manganese	7439-96-5	0.001	mg/L		----	0.006	----	----	----
Iron	7439-89-6	0.05	mg/L		----	0.10	----	----	----
Bromine	7726-95-6	0.1	mg/L		----	0.3	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	0.03	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	<0.01	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	4.13	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	4.13	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	1.2	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	5.3	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	0.10	----	----	----
EN055: Ionic Balance									

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW080_221108	0902_MW091_221107	0902_MW092_221107	0902_MW106_221108	0902_MW109_221108
				Sampling date / time	08-Nov-2022 14:29	07-Nov-2022 15:40	07-Nov-2022 15:27	08-Nov-2022 14:30	08-Nov-2022 09:15
					ES2240328-022	ES2240328-023	ES2240328-024	ES2240328-025	ES2240328-026
					Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued									
ø **Total Anions**	----	0.01	meq/L		**----**	**1.77**	**----**	**----**	**----**
ø **Total Cations**	----	0.01	meq/L		**----**	**1.84**	**----**	**----**	**----**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.30**	<0.02	<0.02	**0.27**	**0.32**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.33**	<0.02	<0.02	**0.32**	**0.36**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**2.07**	**0.05**	<0.01	**2.20**	**2.60**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.09**	<0.02	<0.02	**0.13**	**0.14**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.78**	**0.02**	<0.01	**1.64**	**3.81**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.06**	<0.02	<0.02	**0.07**	**0.12**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.26**	<0.02	<0.02	**0.34**	**0.52**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.04**	<0.02	<0.02	**0.05**	**0.10**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.06**	<0.01	<0.01	**0.08**	**0.18**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW080_221108	0902_MW091_221107	0902_MW092_221107	0902_MW106_221108	0902_MW109_221108
				Sampling date / time	08-Nov-2022 14:29	07-Nov-2022 15:40	07-Nov-2022 15:27	08-Nov-2022 14:30	08-Nov-2022 09:15
					ES2240328-022	ES2240328-023	ES2240328-024	ES2240328-025	ES2240328-026
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**3.99**	**0.07**	<0.01	**5.10**	**8.15**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**2.85**	**0.07**	<0.01	**3.84**	**6.41**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**3.57**	**0.07**	<0.01	**4.65**	**7.65**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**101**	**105**	**94.3**	**103**	**93.1**
13C8-PFOA	----	0.02	%		**99.4**	**99.5**	**99.6**	**93.8**	**98.6**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW110_221108	0902_SW019_221107	0902_QC105_221107	0902_QC107_221107	0902_QC108_221107
				Sampling date / time	08-Nov-2022 11:33	07-Nov-2022 13:10	07-Nov-2022 08:47	07-Nov-2022 09:58	07-Nov-2022 10:35
					ES2240328-027	ES2240328-039	ES2240328-044	ES2240328-046	ES2240328-047
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.30**	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.37**	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**2.00**	**0.04**	<0.01	**0.16**	**0.04**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.03**	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.12**	**0.05**	**0.01**	**0.14**	**0.02**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.08**	<0.02	<0.02	**0.03**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.40**	<0.02	<0.02	**0.06**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.04**	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.05**	**0.01**	<0.01	**0.04**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW110_221108	0902_SW019_221107	0902_QC105_221107	0902_QC107_221107	0902_QC108_221107
				Sampling date / time	08-Nov-2022 11:33	07-Nov-2022 13:10	07-Nov-2022 08:47	07-Nov-2022 09:58	07-Nov-2022 10:35
					ES2240328-027	ES2240328-039	ES2240328-044	ES2240328-046	ES2240328-047
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**3.39**	**0.10**	**0.01**	**0.43**	**0.06**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**2.12**	**0.09**	**0.01**	**0.30**	**0.06**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**2.99**	**0.10**	**0.01**	**0.43**	**0.06**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**96.4**	**101**	**99.6**	**99.2**	**92.7**
13C8-PFOA	----	0.02	%		**97.9**	**103**	**94.6**	**93.6**	**100**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC109_221107	----	----	----	----
				Sampling date / time	07-Nov-2022 13:10	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2240328-048	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.04**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.04**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC109_221107	----	----	----	----
				Sampling date / time	07-Nov-2022 13:10	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2240328-048	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.08**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.08**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.08**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**97.2**	----	----	----	----
13C8-PFOA	----	0.02	%		**102**	----	----	----	----

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)				Sample ID	0902_QC303_221108	0902_QC302_221107	----	----	----
				Sampling date / time	08-Nov-2022 15:29	07-Nov-2022 16:42	----	----	----
Compound	CAS Number	LOR	Unit		ES2240328-050	ES2240328-051	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC303_221108	0902_QC302_221107	----	----	----
				Sampling date / time	08-Nov-2022 15:29	07-Nov-2022 16:42	----	----	----
Compound	CAS Number	LOR	Unit		ES2240328-050	ES2240328-051	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**96.3**	**103**	----	----	----
13C8-PFOA	----	0.02	%		**102**	**103**	----	----	----

Analytical Results

Sub-Matrix: **SEDIMENT** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SD001_221107	0902_SD002_221108	0902_SD003_221108	0902_SD018_221107	0902_SD019_221107
				Sampling date / time	07-Nov-2022 09:24	08-Nov-2022 08:42	08-Nov-2022 09:03	07-Nov-2022 16:35	07-Nov-2022 13:10
					ES2240328-028	ES2240328-029	ES2240328-030	ES2240328-031	ES2240328-032
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**55.8**	**68.9**	**66.0**	**28.9**	**60.9**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		**0.0051**	**0.0048**	**0.0046**	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		**0.0112**	**0.0055**	**0.0053**	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.218**	**0.0864**	**0.0680**	**0.0005**	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		**0.0367**	**0.0151**	**0.0097**	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**8.20**	**1.09**	**0.783**	**0.0022**	**0.0023**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		**0.318**	**0.0136**	**0.0070**	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.005	<0.005	<0.005	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		**0.0054**	**0.0022**	**0.0019**	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		**0.0222**	**0.0072**	**0.0081**	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		**0.0291**	**0.0016**	**0.0018**	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		**0.0926**	**0.0053**	**0.0050**	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		**0.423**	**0.0014**	<0.0010	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		**2.21**	**0.0030**	**0.0023**	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		**5.53**	**0.0050**	**0.0062**	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		**5.36**	**0.0140**	**0.0103**	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		**1.23**	**0.0058**	**0.0035**	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		**1.02**	**0.0059**	**0.0028**	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		**0.128**	**0.0318**	**0.0085**	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0025	<0.0025	<0.0025	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD001_221107	0902_SD002_221108	0902_SD003_221108	0902_SD018_221107	0902_SD019_221107
				Sampling date / time	07-Nov-2022 09:24	08-Nov-2022 08:42	08-Nov-2022 09:03	07-Nov-2022 16:35	07-Nov-2022 13:10
Compound	CAS Number	LOR	Unit		ES2240328-028	ES2240328-029	ES2240328-030	ES2240328-031	ES2240328-032
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0025	<0.0025	<0.0025	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0025	<0.0025	<0.0025	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0025	<0.0025	<0.0025	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0010	<0.0010	<0.0010	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0010	<0.0010	<0.0010	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0010	<0.0010	<0.0010	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		**0.0925**	<0.0010	<0.0010	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		**3.52**	**0.0019**	**0.0026**	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		**0.493**	<0.0010	<0.0010	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**28.9**	**1.30**	**0.931**	**0.0027**	**0.0023**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**8.42**	**1.18**	**0.851**	**0.0027**	**0.0023**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**12.2**	**1.20**	**0.875**	**0.0027**	**0.0023**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**80.0**	**95.0**	**70.0**	**104**	**106**
13C8-PFOA	----	0.0002	%		**95.0**	**85.0**	**85.0**	**108**	**110**

Analytical Results

Sub-Matrix: **SEDIMENT** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SD020_221107	0902_SD023_221107	0902_SD030_221107	0902_QC106_221107	0902_QC110_221107
				Sampling date / time	07-Nov-2022 17:10	07-Nov-2022 13:40	07-Nov-2022 16:10	07-Nov-2022 09:20	07-Nov-2022 13:40
					ES2240328-033	ES2240328-034	ES2240328-035	ES2240328-045	ES2240328-049
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**22.6**	**40.0**	**22.9**	**57.9**	**33.6**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0053**	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0109**	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	**0.0005**	<0.0002	**0.204**	**0.0004**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0347**	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0007**	**0.0023**	<0.0002	**8.53**	**0.0020**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.320**	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.005	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0055**	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0224**	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.0275**	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.101**	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.386**	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**2.27**	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**5.58**	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**5.46**	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**1.13**	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	**1.03**	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	**0.128**	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0025	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD020_221107	0902_SD023_221107	0902_SD030_221107	0902_QC106_221107	0902_QC110_221107
				Sampling date / time	07-Nov-2022 17:10	07-Nov-2022 13:40	07-Nov-2022 16:10	07-Nov-2022 09:20	07-Nov-2022 13:40
Compound	CAS Number	LOR	Unit		ES2240328-033	ES2240328-034	ES2240328-035	ES2240328-045	ES2240328-049
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0025	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0025	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0025	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0010	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0010	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0010	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	**0.0926**	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	**3.82**	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	**0.511**	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0007**	**0.0028**	<0.0002	**29.7**	**0.0024**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0007**	**0.0028**	<0.0002	**8.73**	**0.0024**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0007**	**0.0028**	<0.0002	**12.8**	**0.0024**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**108**	**105**	**108**	**75.0**	**100**
13C8-PFOA	----	0.0002	%		**113**	**104**	**114**	**95.0**	**110**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW002_221108	0902_SW003_221108	0902_SW018_221107	0902_SW020_221107	0902_SW023_221107
				Sampling date / time	08-Nov-2022 08:41	08-Nov-2022 09:02	07-Nov-2022 16:35	07-Nov-2022 17:16	07-Nov-2022 13:40
Compound	CAS Number	LOR	Unit		ES2240328-036	ES2240328-037	ES2240328-038	ES2240328-040	ES2240328-041
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	<1	----	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	<1	----	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	73	----	91	88
Total Alkalinity as CaCO3	----	1	mg/L		----	73	----	91	88
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	3	----	57	38
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	31	----	378	342
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	13	----	23	33
Magnesium	7439-95-4	1	mg/L		----	5	----	34	31
Sodium	7440-23-5	1	mg/L		----	25	----	178	159
Potassium	7440-09-7	1	mg/L		----	2	----	10	8
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	0.04	----	0.06	0.11
Manganese	7439-96-5	0.001	mg/L		----	0.553	----	0.116	1.13
Iron	7439-89-6	0.05	mg/L		----	3.98	----	0.72	1.58
Bromine	7726-95-6	0.1	mg/L		----	0.2	----	1.3	1.4
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	0.12	----	0.02	0.34
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	<0.01	----	<0.01	0.03
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	0.02	----	<0.01	0.22
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	0.02	----	<0.01	0.25
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	0.4	----	1.1	1.1
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	0.4	----	1.1	1.4
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	0.23	----	0.13	0.10
EN055: Ionic Balance									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0902_SW002_221108	0902_SW003_221108	0902_SW018_221107	0902_SW020_221107	0902_SW023_221107
			Sampling date / time	08-Nov-2022 08:41	08-Nov-2022 09:02	07-Nov-2022 16:35	07-Nov-2022 17:16	07-Nov-2022 13:40
Compound	CAS Number	LOR	Unit	ES2240328-036	ES2240328-037	ES2240328-038	ES2240328-040	ES2240328-041
				Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued								
ø **Total Anions**	----	0.01	meq/L	**----**	**2.40**	**----**	**13.7**	**12.2**
ø **Total Cations**	----	0.01	meq/L	**----**	**2.20**	**----**	**11.9**	**11.3**
ø **Ionic Balance**	----	0.01	%	**----**	**----**	**----**	**6.73**	**3.73**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**2.02**	**2.25**	<0.02	**0.02**	**0.03**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**2.42**	**2.77**	<0.02	<0.02	**0.02**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**16.3**	**17.6**	**0.02**	**0.04**	**0.17**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	**1.26**	**1.57**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**26.8**	**28.6**	**0.03**	**0.06**	**0.29**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	**0.03**	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	**0.5**	**0.5**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	**0.77**	**0.91**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**3.23**	**3.83**	<0.02	<0.02	**0.04**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	**0.62**	**0.72**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	**1.07**	**1.25**	<0.01	**0.01**	**0.02**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	**0.05**	**0.10**	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	**0.06**	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	**0.03**	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	**0.03**	<0.02	<0.02	<0.02

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW002_221108	0902_SW003_221108	0902_SW018_221107	0902_SW020_221107	0902_SW023_221107
				Sampling date / time	08-Nov-2022 08:41	08-Nov-2022 09:02	07-Nov-2022 16:35	07-Nov-2022 17:16	07-Nov-2022 13:40
Compound	CAS Number	LOR	Unit		ES2240328-036	ES2240328-037	ES2240328-038	ES2240328-040	ES2240328-041
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		**0.07**	**0.10**	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	**0.08**	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**55.1**	**60.4**	**0.05**	**0.13**	**0.57**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**43.1**	**46.2**	**0.05**	**0.10**	**0.46**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**51.4**	**55.8**	**0.05**	**0.13**	**0.55**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**94.8**	**96.7**	**97.8**	**104**	**103**
13C8-PFOA	----	0.02	%		**98.1**	**96.9**	**102**	**102**	**98.8**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW030_221107	0902_SW037_221108	----	----	----
				Sampling date / time	07-Nov-2022 16:09	08-Nov-2022 10:31	----	----	----
Compound	CAS Number	LOR	Unit		ES2240328-042	ES2240328-043	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.08**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.18**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.02**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW030_221107	0902_SW037_221108	----	----	----
				Sampling date / time	07-Nov-2022 16:09	08-Nov-2022 10:31	----	----	----
Compound	CAS Number	LOR	Unit		ES2240328-042	ES2240328-043	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**0.28**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.26**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**0.28**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**97.9**	**98.6**	----	----	----
13C8-PFOA	----	0.02	%		**101**	**96.8**	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_MW046_221107	----	----	----	----
				Sampling date / time	07-Nov-2022 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2240328-052	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.05**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	0902_MW046_221107	----	----	----	----
				Sampling date / time	07-Nov-2022 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2240328-052	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.05**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.05**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.05**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**97.3**	----	----	----	----
13C8-PFOA	----	0.02	%		**105**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: DRINKING WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: RINSATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2240328**	Page	: 1 of 13
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 08-Nov-2022
Site	: 0902_221108	Issue Date	: 16-Nov-2022
Sampler	: JESSICA ROY, MAT JENKINS	No. of samples received	: 52
Order number	: 60612562_5.1	No. of samples analysed	: 52

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	4	58	6.90	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	2	58	3.45	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container* / Client Sample ID(s)		*Sample Date*	*Extraction / Preparation*			*Analysis*		
			Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EA055: Moisture Content (Dried @ 105-110°C)								
HDPE Soil Jar (EA055)								
0902_SD001_221107,	0902_SD018_221107,	**07-Nov-2022**	**----**	----	----	**11-Nov-2022**	21-Nov-2022	✓
0902_SD019_221107,	0902_SD020_221107,							
0902_SD023_221107,	0902_SD030_221107,							
0902_QC106_221107,	0902_QC110_221107							
HDPE Soil Jar (EA055)								
0902_SD002_221108,	0902_SD003_221108	**08-Nov-2022**	**----**	----	----	**11-Nov-2022**	22-Nov-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X)								
0902_SD001_221107,	0902_SD018_221107,	**07-Nov-2022**	**10-Nov-2022**	06-May-2023	✓	**14-Nov-2022**	20-Dec-2022	✓
0902_SD019_221107,	0902_SD020_221107,							
0902_SD023_221107,	0902_SD030_221107,							
0902_QC106_221107,	0902_QC110_221107							
HDPE Soil Jar (EP231X)								
0902_SD002_221108,	0902_SD003_221108	**08-Nov-2022**	**10-Nov-2022**	07-May-2023	✓	**14-Nov-2022**	20-Dec-2022	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X)								
0902_SD001_221107,	0902_SD018_221107,	**07-Nov-2022**	**10-Nov-2022**	06-May-2023	✓	**14-Nov-2022**	20-Dec-2022	✓
0902_SD019_221107,	0902_SD020_221107,							
0902_SD023_221107,	0902_SD030_221107,							
0902_QC106_221107,	0902_QC110_221107							
HDPE Soil Jar (EP231X)								
0902_SD002_221108,	0902_SD003_221108	**08-Nov-2022**	**10-Nov-2022**	07-May-2023	✓	**14-Nov-2022**	20-Dec-2022	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0902_SD001_221107, 0902_SD018_221107, 0902_SD019_221107, 0902_SD020_221107, 0902_SD023_221107, 0902_SD030_221107, 0902_QC106_221107, 0902_QC110_221107	**07-Nov-2022**	**10-Nov-2022**	06-May-2023	✓	**14-Nov-2022**	20-Dec-2022	✓
HDPE Soil Jar (EP231X) 0902_SD002_221108, 0902_SD003_221108	**08-Nov-2022**	**10-Nov-2022**	07-May-2023	✓	**14-Nov-2022**	20-Dec-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD001_221107, 0902_SD018_221107, 0902_SD019_221107, 0902_SD020_221107, 0902_SD023_221107, 0902_SD030_221107, 0902_QC106_221107, 0902_QC110_221107	**07-Nov-2022**	**10-Nov-2022**	06-May-2023	✓	**14-Nov-2022**	20-Dec-2022	✓
HDPE Soil Jar (EP231X) 0902_SD002_221108, 0902_SD003_221108	**08-Nov-2022**	**10-Nov-2022**	07-May-2023	✓	**14-Nov-2022**	20-Dec-2022	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) 0902_SD001_221107, 0902_SD018_221107, 0902_SD019_221107, 0902_SD020_221107, 0902_SD023_221107, 0902_SD030_221107, 0902_QC106_221107, 0902_QC110_221107	**07-Nov-2022**	**10-Nov-2022**	06-May-2023	✓	**14-Nov-2022**	20-Dec-2022	✓
HDPE Soil Jar (EP231X) 0902_SD002_221108, 0902_SD003_221108	**08-Nov-2022**	**10-Nov-2022**	07-May-2023	✓	**14-Nov-2022**	20-Dec-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED037P: Alkalinity by PC Titrator							
Clear Plastic Bottle - Natural (ED037-P) 0902_MW091_221107, 0902_SW020_221107, 0902_SW023_221107	**07-Nov-2022**	**----**	----	----	**09-Nov-2022**	21-Nov-2022	✓
Clear Plastic Bottle - Natural (ED037-P) 0902_MW022_221108, 0902_MW075_221108, 0902_SW003_221108	**08-Nov-2022**	**----**	----	----	**09-Nov-2022**	22-Nov-2022	✓
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA							
Clear Plastic Bottle - Natural (ED041G) 0902_MW091_221107, 0902_SW020_221107, 0902_SW023_221107	**07-Nov-2022**	**----**	----	----	**09-Nov-2022**	05-Dec-2022	✓
Clear Plastic Bottle - Natural (ED041G) 0902_MW022_221108, 0902_MW075_221108, 0902_SW003_221108	**08-Nov-2022**	**----**	----	----	**09-Nov-2022**	06-Dec-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED045G: Chloride by Discrete Analyser								
Clear Plastic Bottle - Natural (ED045G)								
0902_MW091_221107, 0902_SW023_221107	0902_SW020_221107,	**07-Nov-2022**	**----**	----	----	**09-Nov-2022**	05-Dec-2022	✓
Clear Plastic Bottle - Natural (ED045G)								
0902_MW022_221108, 0902_SW003_221108	0902_MW075_221108,	**08-Nov-2022**	**----**	----	----	**09-Nov-2022**	06-Dec-2022	✓
ED093F: Dissolved Major Cations								
Clear Plastic Bottle - Natural (ED093F)								
0902_MW091_221107, 0902_SW023_221107	0902_SW020_221107,	**07-Nov-2022**	**----**	----	----	**11-Nov-2022**	14-Nov-2022	✓
Clear Plastic Bottle - Natural (ED093F)								
0902_MW022_221108, 0902_SW003_221108	0902_MW075_221108,	**08-Nov-2022**	**----**	----	----	**11-Nov-2022**	15-Nov-2022	✓
EG020T: Total Metals by ICP-MS								
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)								
0902_MW091_221107, 0902_SW023_221107	0902_SW020_221107,	**07-Nov-2022**	**11-Nov-2022**	06-May-2023	✓	**11-Nov-2022**	06-May-2023	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)								
0902_MW022_221108, 0902_SW003_221108	0902_MW075_221108,	**08-Nov-2022**	**11-Nov-2022**	07-May-2023	✓	**11-Nov-2022**	07-May-2023	✓
EK055G: Ammonia as N by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK055G)								
0902_MW091_221107, 0902_SW023_221107	0902_SW020_221107,	**07-Nov-2022**	**----**	----	----	**14-Nov-2022**	05-Dec-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK055G)								
0902_MW022_221108, 0902_SW003_221108	0902_MW075_221108,	**08-Nov-2022**	**----**	----	----	**14-Nov-2022**	06-Dec-2022	✓
EK057G: Nitrite as N by Discrete Analyser								
Clear Plastic Bottle - Natural (EK057G)								
0902_MW091_221107, 0902_SW023_221107	0902_SW020_221107,	**07-Nov-2022**	**----**	----	----	**09-Nov-2022**	09-Nov-2022	✓
Clear Plastic Bottle - Natural (EK057G)								
0902_MW022_221108, 0902_SW003_221108	0902_MW075_221108,	**08-Nov-2022**	**----**	----	----	**09-Nov-2022**	10-Nov-2022	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK059G)								
0902_MW091_221107, 0902_SW023_221107	0902_SW020_221107,	**07-Nov-2022**	**----**	----	----	**14-Nov-2022**	05-Dec-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK059G)								
0902_MW022_221108, 0902_SW003_221108	0902_MW075_221108,	**08-Nov-2022**	**----**	----	----	**14-Nov-2022**	06-Dec-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK061G) 0902_MW091_221107, 0902_SW020_221107, 0902_SW023_221107	**07-Nov-2022**	**14-Nov-2022**	05-Dec-2022	✓	**14-Nov-2022**	05-Dec-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK061G) 0902_MW022_221108, 0902_MW075_221108, 0902_SW003_221108	**08-Nov-2022**	**14-Nov-2022**	06-Dec-2022	✓	**14-Nov-2022**	06-Dec-2022	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G) 0902_MW091_221107, 0902_SW020_221107, 0902_SW023_221107	**07-Nov-2022**	**14-Nov-2022**	05-Dec-2022	✓	**14-Nov-2022**	05-Dec-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK067G) 0902_MW022_221108, 0902_MW075_221108, 0902_SW003_221108	**08-Nov-2022**	**14-Nov-2022**	06-Dec-2022	✓	**14-Nov-2022**	06-Dec-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0902_MW062_221103, 0902_MW063_221103, 0902_MW067_221103, 0902_MW068_221103, 0902_MW069_221103, 0902_MW070_221103, 0902_MW071_221103	**03-Nov-2022**	**10-Nov-2022**	02-May-2023	✓	**15-Nov-2022**	02-May-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW025_221107, 0902_MW026_221107, 0902_MW056_221107, 0902_MW059_221107, 0902_MW060_221107, 0902_MW061_221107, 0902_MW091_221107, 0902_MW092_221107, 0902_SW018_221107, 0902_SW019_221107, 0902_SW020_221107, 0902_SW023_221107, 0902_SW030_221107, 0902_QC105_221107, 0902_QC107_221107, 0902_QC108_221107	**07-Nov-2022**	**10-Nov-2022**	06-May-2023	✓	**15-Nov-2022**	06-May-2023	✓
HDPE (no PTFE) (EP231X) 0902_QC109_221107, 0902_QC302_221107, 0902_MW046_221107	**07-Nov-2022**	**11-Nov-2022**	06-May-2023	✓	**14-Nov-2022**	06-May-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW020_221108, 0902_MW021_221108, 0902_MW022_221108, 0902_MW023_221108, 0902_MW036_221108, 0902_MW075_221108, 0902_MW078_221108, 0902_MW079_221108, 0902_MW080_221108, 0902_MW106_221108, 0902_MW109_221108, 0902_MW110_221108, 0902_SW002_221108, 0902_SW003_221108, 0902_SW037_221108	**08-Nov-2022**	**10-Nov-2022**	07-May-2023	✓	**15-Nov-2022**	07-May-2023	✓
HDPE (no PTFE) (EP231X) 0902_QC303_221108	**08-Nov-2022**	**11-Nov-2022**	07-May-2023	✓	**14-Nov-2022**	07-May-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW062_221103, 0902_MW063_221103, 0902_MW067_221103, 0902_MW068_221103, 0902_MW069_221103, 0902_MW070_221103, 0902_MW071_221103	**03-Nov-2022**	**10-Nov-2022**	02-May-2023	✓	**15-Nov-2022**	02-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW025_221107, 0902_MW026_221107, 0902_MW056_221107, 0902_MW059_221107, 0902_MW060_221107, 0902_MW061_221107, 0902_MW091_221107, 0902_MW092_221107, 0902_SW018_221107, 0902_SW019_221107, 0902_SW020_221107, 0902_SW023_221107, 0902_SW030_221107, 0902_QC105_221107, 0902_QC107_221107, 0902_QC108_221107	**07-Nov-2022**	**10-Nov-2022**	06-May-2023	✓	**15-Nov-2022**	06-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_QC109_221107, 0902_QC302_221107, 0902_MW046_221107	**07-Nov-2022**	**11-Nov-2022**	06-May-2023	✓	**14-Nov-2022**	06-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW020_221108, 0902_MW021_221108, 0902_MW022_221108, 0902_MW023_221108, 0902_MW036_221108, 0902_MW075_221108, 0902_MW078_221108, 0902_MW079_221108, 0902_MW080_221108, 0902_MW106_221108, 0902_MW109_221108, 0902_MW110_221108, 0902_SW002_221108, 0902_SW003_221108, 0902_SW037_221108	**08-Nov-2022**	**10-Nov-2022**	07-May-2023	✓	**15-Nov-2022**	07-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_QC303_221108	**08-Nov-2022**	**11-Nov-2022**	07-May-2023	✓	**14-Nov-2022**	07-May-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0902_MW062_221103, 0902_MW063_221103, 0902_MW067_221103, 0902_MW068_221103, 0902_MW069_221103, 0902_MW070_221103, 0902_MW071_221103	**03-Nov-2022**	**10-Nov-2022**	02-May-2023	✓	**15-Nov-2022**	02-May-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW025_221107, 0902_MW026_221107, 0902_MW056_221107, 0902_MW059_221107, 0902_MW060_221107, 0902_MW061_221107, 0902_MW091_221107, 0902_MW092_221107, 0902_SW018_221107, 0902_SW019_221107, 0902_SW020_221107, 0902_SW023_221107, 0902_SW030_221107, 0902_QC105_221107, 0902_QC107_221107, 0902_QC108_221107	**07-Nov-2022**	**10-Nov-2022**	06-May-2023	✓	**15-Nov-2022**	06-May-2023	✓
HDPE (no PTFE) (EP231X) 0902_QC109_221107, 0902_QC302_221107, 0902_MW046_221107	**07-Nov-2022**	**11-Nov-2022**	06-May-2023	✓	**14-Nov-2022**	06-May-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW020_221108, 0902_MW021_221108, 0902_MW022_221108, 0902_MW023_221108, 0902_MW036_221108, 0902_MW075_221108, 0902_MW078_221108, 0902_MW079_221108, 0902_MW080_221108, 0902_MW106_221108, 0902_MW109_221108, 0902_MW110_221108, 0902_SW002_221108, 0902_SW003_221108, 0902_SW037_221108	**08-Nov-2022**	**10-Nov-2022**	07-May-2023	✓	**15-Nov-2022**	07-May-2023	✓
HDPE (no PTFE) (EP231X) 0902_QC303_221108	**08-Nov-2022**	**11-Nov-2022**	07-May-2023	✓	**14-Nov-2022**	07-May-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW062_221103, 0902_MW063_221103, 0902_MW067_221103, 0902_MW068_221103, 0902_MW069_221103, 0902_MW070_221103, 0902_MW071_221103	**03-Nov-2022**	**10-Nov-2022**	02-May-2023	✓	**15-Nov-2022**	02-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW025_221107, 0902_MW026_221107, 0902_MW056_221107, 0902_MW059_221107, 0902_MW060_221107, 0902_MW061_221107, 0902_MW091_221107, 0902_MW092_221107, 0902_SW018_221107, 0902_SW019_221107, 0902_SW020_221107, 0902_SW023_221107, 0902_SW030_221107, 0902_QC105_221107, 0902_QC107_221107, 0902_QC108_221107	**07-Nov-2022**	**10-Nov-2022**	06-May-2023	✓	**15-Nov-2022**	06-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_QC109_221107, 0902_QC302_221107, 0902_MW046_221107	**07-Nov-2022**	**11-Nov-2022**	06-May-2023	✓	**14-Nov-2022**	06-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW020_221108, 0902_MW021_221108, 0902_MW022_221108, 0902_MW023_221108, 0902_MW036_221108, 0902_MW075_221108, 0902_MW078_221108, 0902_MW079_221108, 0902_MW080_221108, 0902_MW106_221108, 0902_MW109_221108, 0902_MW110_221108, 0902_SW002_221108, 0902_SW003_221108, 0902_SW037_221108	**08-Nov-2022**	**10-Nov-2022**	07-May-2023	✓	**15-Nov-2022**	07-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_QC303_221108	**08-Nov-2022**	**11-Nov-2022**	07-May-2023	✓	**14-Nov-2022**	07-May-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0902_MW062_221103, 0902_MW063_221103, 0902_MW067_221103, 0902_MW068_221103, 0902_MW069_221103, 0902_MW070_221103, 0902_MW071_221103	**03-Nov-2022**	**10-Nov-2022**	02-May-2023	✓	**15-Nov-2022**	02-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW025_221107, 0902_MW026_221107, 0902_MW056_221107, 0902_MW059_221107, 0902_MW060_221107, 0902_MW061_221107, 0902_MW091_221107, 0902_MW092_221107, 0902_SW018_221107, 0902_SW019_221107, 0902_SW020_221107, 0902_SW023_221107, 0902_SW030_221107, 0902_QC105_221107, 0902_QC107_221107, 0902_QC108_221107	**07-Nov-2022**	**10-Nov-2022**	06-May-2023	✓	**15-Nov-2022**	06-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_QC109_221107, 0902_QC302_221107, 0902_MW046_221107	**07-Nov-2022**	**11-Nov-2022**	06-May-2023	✓	**14-Nov-2022**	06-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW020_221108, 0902_MW021_221108, 0902_MW022_221108, 0902_MW023_221108, 0902_MW036_221108, 0902_MW075_221108, 0902_MW078_221108, 0902_MW079_221108, 0902_MW080_221108, 0902_MW106_221108, 0902_MW109_221108, 0902_MW110_221108, 0902_SW002_221108, 0902_SW003_221108, 0902_SW037_221108	**08-Nov-2022**	**10-Nov-2022**	07-May-2023	✓	**15-Nov-2022**	07-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_QC303_221108	**08-Nov-2022**	**11-Nov-2022**	07-May-2023	✓	**14-Nov-2022**	07-May-2023	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	17	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Alkalinity by Auto Titrator	ED037-P	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	4	25	16.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	14	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	58	6.90	10.00	×	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by Auto Titrator	ED037-P	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	25	8.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	58	5.17	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	3	20	15.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	20	15.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	25	**8.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	14	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	58	**5.17**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	14	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	58	**3.45**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Alkalinity by Auto Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. PC Titrate) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G.The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO3-. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030F. This method is compliant with NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2240328**	Page	: 1 of 18
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 08-Nov-2022
Order number	: 60612562_5.1	Date Analysis Commenced	: 09-Nov-2022
C-O-C number	: 44713	Issue Date	: 16-Nov-2022
Sampler	: JESSICA ROY, MAT JENKINS		
Site	: 0902_221108		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 52		
No. of samples analysed	: 52		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4697870)									
ES2240328-030	0902_SD003_221108	EA055: Moisture Content	----	0.1	%	66.0	67.3	2.1	0% - 20%
ES2240406-003	Anonymous	EA055: Moisture Content	----	0.1	%	18.2	19.2	5.5	0% - 50%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4692014)									
ES2239591-028	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0002	0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2240328-032	0902_SD019_221107	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0023	0.0023	0.0	0% - 50%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4692014)									
ES2239591-028	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4692014) - continued									
ES2239591-028	Anonymous	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2240328-032	0902_SD019_221107	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4692014)									
ES2239591-028	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2240328-032	0902_SD019_221107	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4692014)									
ES2239591-028	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2240328-032	0902_SD019_221107	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED037P: Alkalinity by PC Titrator (QC Lot: 4690702)									
ES2240328-019	0902_MW075_221108	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	86	87	1.3	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	86	87	1.3	0% - 20%
WN2213983-002	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	128	128	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	128	128	0.0	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4691316)									
ES2240328-041	0902_SW023_221107	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	38	39	0.0	0% - 20%
ES2240229-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	23	22	0.0	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 4691315)									
ES2240328-041	0902_SW023_221107	ED045G: Chloride	16887-00-6	1	mg/L	342	348	1.9	0% - 20%
ES2240229-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	30	30	0.0	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 4695349)									
ES2240180-001	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	8	9	0.0	No Limit
		ED093F: Magnesium	7439-95-4	1	mg/L	70	71	1.5	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	12	12	0.0	0% - 50%
		ED093F: Potassium	7440-09-7	1	mg/L	3	3	0.0	No Limit
ES2240180-017	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	4	4	0.0	No Limit
		ED093F: Magnesium	7439-95-4	1	mg/L	31	31	0.0	0% - 20%

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED093F: Dissolved Major Cations (QC Lot: 4695349) - continued									
ES2240180-017	Anonymous	ED093F: Sodium	7440-23-5	1	mg/L	87	89	2.3	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	5	5	0.0	No Limit
ED093F: Dissolved Major Cations (QC Lot: 4695631)									
EN2210896-001	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	14	14	0.0	0% - 50%
		ED093F: Magnesium	7439-95-4	1	mg/L	4	3	0.0	No Limit
		ED093F: Sodium	7440-23-5	1	mg/L	21	20	0.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	2	2	0.0	No Limit
ES2240459-001	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	13	14	0.0	0% - 50%
		ED093F: Magnesium	7439-95-4	1	mg/L	2	2	0.0	No Limit
		ED093F: Sodium	7440-23-5	1	mg/L	11	11	0.0	0% - 50%
		ED093F: Potassium	7440-09-7	1	mg/L	1	1	0.0	No Limit
EG020T: Total Metals by ICP-MS (QC Lot: 4696801)									
ES2240336-002	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	0.024	0.023	0.0	No Limit
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.10	<0.10	0.0	No Limit
		EG020A-T: Iron	7439-89-6	0.05	mg/L	0.27	0.27	0.0	No Limit
ES2240299-001	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	0.029	0.028	0.0	0% - 20%
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	0.12	0.12	0.0	0% - 50%
		EG020A-T: Iron	7439-89-6	0.05	mg/L	0.35	0.37	5.6	No Limit
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 4699125)									
ES2240132-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.05	0.05	0.0	No Limit
ES2240328-037	0902_SW003_221108	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.12	0.13	9.5	0% - 50%
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4691317)									
ES2240328-041	0902_SW023_221107	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	0.03	0.03	0.0	No Limit
ES2240229-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4699126)									
ES2240132-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.06	0.04	49.9	No Limit
ES2240328-037	0902_SW003_221108	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.02	0.02	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 4699122)									
ES2240132-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	1.1	1.1	0.0	0% - 50%
ES2240328-023	0902_MW091_221107	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	1.2	1.2	0.0	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4699121)									
ES2240132-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.13	0.13	0.0	0% - 50%
ES2240328-023	0902_MW091_221107	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.10	0.12	14.8	0% - 50%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4692065)									
ES2240328-006	0902_MW026_221107	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	2.35	2.73	15.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.60	0.68	11.9	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.36	0.39	7.9	0% - 50%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.40	0.45	10.7	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.09	0.10	16.1	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4692065) - continued									
ES2240328-006	0902_MW026_221107	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2240328-013	0902_MW063_221103	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	11.2	11.0	2.5	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	4.43	5.30	18.0	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	1.66	1.79	7.4	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	2.28	2.09	8.5	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.65	0.64	2.4	0% - 50%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4692592)									
ES2240328-020	0902_MW078_221108	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.67	0.66	0.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.08	0.08	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.10	0.10	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2240328-025	0902_MW106_221108	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	2.20	2.37	7.3	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	1.64	1.80	9.3	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.27	0.30	9.4	0% - 50%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.32	0.36	12.4	0% - 50%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.13	0.13	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4692065)									
ES2240328-006	0902_MW026_221107	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.10	0.11	12.0	0% - 50%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.06	0.07	18.5	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.36	0.40	10.1	0% - 50%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2240328-013	0902_MW063_221103	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.55	0.64	16.1	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.65	0.57	12.8	0% - 50%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	3.20	2.98	7.1	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.45	0.41	9.3	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4692065) - continued									
ES2240328-013	0902_MW063_221103	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	0.4	0.3	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4692592)									
ES2240328-020	0902_MW078_221108	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.16	0.16	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	0.1	0.1	0.0	No Limit
ES2240328-025	0902_MW106_221108	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.08	0.08	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.07	0.08	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.34	0.37	8.9	0% - 50%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.05	0.05	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4692065)									
ES2240328-006	0902_MW026_221107	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4692065) - continued									
ES2240328-013	0902_MW063_221103	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4692592)									
ES2240328-020	0902_MW078_221108	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2240328-025	0902_MW106_221108	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4692065)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4692065) - continued									
ES2240328-006	0902_MW026_221107	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2240328-013	0902_MW063_221103	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4692592)									
ES2240328-020	0902_MW078_221108	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2240328-025	0902_MW106_221108	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4692065)									
ES2240328-006	0902_MW026_221107	EP231X: Sum of PFAS	----	0.01	µg/L	4.38	4.99	13.0	0% - 20%
ES2240328-013	0902_MW063_221103	EP231X: Sum of PFAS	----	0.01	µg/L	25.5	25.7	1.0	0% - 20%
EP231P: PFAS Sums (QC Lot: 4692592)									
ES2240328-020	0902_MW078_221108	EP231X: Sum of PFAS	----	0.01	µg/L	1.21	1.20	0.8	0% - 20%
ES2240328-025	0902_MW106_221108	EP231X: Sum of PFAS	----	0.01	µg/L	5.10	5.54	8.3	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4692014)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	86.4	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.6	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.2	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4692014)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	99.7	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	117	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	107	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	112	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4692014)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	111	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	112	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	107	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	105	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4692014)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	102	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	88.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	110	65.0	137

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4692014) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	108	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
ED037P: Alkalinity by PC Titrator (QCLot: 4690702)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	95.9	81.0	111
				----	50 mg/L	106	80.0	120
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4691316)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	102	82.0	122
				<1	500 mg/L	101	82.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 4691315)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	92.6	80.9	127
				<1	1000 mg/L	103	80.9	127
ED093F: Dissolved Major Cations (QCLot: 4695349)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	95.4	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	96.4	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	97.0	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	95.8	85.0	113
ED093F: Dissolved Major Cations (QCLot: 4695631)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	94.4	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	96.9	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	96.8	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	94.2	85.0	113
EG020T: Total Metals by ICP-MS (QCLot: 4696801)								
EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	92.7	82.0	120
EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	90.3	85.0	113
EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	89.2	85.0	117
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4699125)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	106	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4691317)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	104	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4699126)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	106	91.0	113
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4699122)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	10 mg/L	99.1	69.0	101
				<0.1	1 mg/L	98.8	70.0	118
				<0.1	5 mg/L	96.7	70.0	130

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4699121)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	101	71.3	126
				<0.01	0.442 mg/L	104	71.3	126
				<0.01	1 mg/L	112	71.3	126
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4692065)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	86.6	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	104	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	93.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	93.6	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	95.4	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	96.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4692592)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	89.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	102	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	95.8	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	97.2	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	104	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	92.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4695215)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	78.0	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	88.2	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	80.4	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	83.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	82.2	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	77.8	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4692065)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	89.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	82.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	96.2	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	100	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	97.8	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	97.2	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	115	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	106	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	113	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4692592)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	97.9	73.0	129

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4692592) - continued								
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	105	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	109	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	108	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	113	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	110	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	107	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	122	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4695215)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	80.7	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	83.2	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	83.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	89.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	85.2	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	90.8	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	83.0	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.0	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	85.8	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	80.6	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	97.1	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4692065)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	98.2	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	109	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	107	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	105	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	104	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	97.4	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.8	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4692592)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	107	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	123	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	122	62.6	147

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4692592) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	114	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	79.0	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	105	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	115	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4695215)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	91.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	99.4	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	109	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	95.6	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	75.4	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	85.0	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	86.2	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4692065)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	89.6	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	102	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	106	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	106	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4692592)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	118	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	109	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	103	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	93.2	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4695215)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	81.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	95.2	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	94.8	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	84.8	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4692014)							
ES2239591-028	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	84.0	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	107	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	96.0	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	108	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	102	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	104	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4692014)							
ES2239591-028	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	100	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	110	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	106	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	110	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	114	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	112	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	96.8	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	96.0	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	104	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	110	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	104	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4692014)							
ES2239591-028	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	105	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	104	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	105	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	102	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	92.0	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	121	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	103	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4692014)							
ES2239591-028	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	98.4	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	89.6	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	118	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	114	69.2	143

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4691316)							
ES2240229-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	10 mg/L	113	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4691315)							
ES2240229-001	Anonymous	ED045G: Chloride	16887-00-6	50 mg/L	112	70.0	130
EG020T: Total Metals by ICP-MS (QCLot: 4696801)							
ES2240289-002	Anonymous	EG020A-T: Manganese	7439-96-5	1 mg/L	95.9	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4699125)							
ES2240132-001	Anonymous	EK055G: Ammonia as N	7664-41-7	1 mg/L	109	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4691317)							
ES2240229-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	90.6	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4699126)							
ES2240132-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	97.6	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4699122)							
ES2240181-002	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	98.0	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4699121)							
ES2240181-002	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	111	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4692065)							
ES2240328-008	0902_MW056_221107	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	90.0	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	103	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	94.4	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	96.8	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	107	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	91.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4692592)							
ES2240328-023	0902_MW091_221107	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	83.6	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	101	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	96.4	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	107	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	94.8	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	94.4	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4692065)							
ES2240328-008	0902_MW056_221107	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	95.6	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	90.8	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	115	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	104	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	103	71.0	133

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4692065) - continued							
ES2240328-008	0902_MW056_221107	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	112	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	106	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	111	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	116	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	118	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	116	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4692592)							
ES2240328-023	0902_MW091_221107	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	97.0	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	103	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	106	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	110	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	107	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	111	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	104	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	110	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	103	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	100	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	123	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4692065)							
ES2240328-008	0902_MW056_221107	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	101	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	108	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	102	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	111	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	120	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	99.0	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	108	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4692592)							
ES2240328-023	0902_MW091_221107	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	102	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	103	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	108	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	107	66.0	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4692592) - continued							
ES2240328-023	0902_MW091_221107	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	87.7	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	104	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	102	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4692065)							
ES2240328-008	0902_MW056_221107	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	96.2	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	113	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	105	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	104	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4692592)							
ES2240328-023	0902_MW091_221107	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	95.8	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	101	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	94.2	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	85.0	71.4	144

ALS Environmental

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2240328**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Sepan.Mahamad@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 4
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 44713	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0902_221108		
Sampler	: JESSICA ROY, MAT JENKINS		

Dates

Date Samples Received	: 08-Nov-2022 17:00	Issue Date	: 09-Nov-2022
Client Requested Due Date	: 16-Nov-2022	Scheduled Reporting Date	: **16-Nov-2022**

Delivery Details

Mode of Delivery	: Client Drop Off	Security Seal	: Not Available
No. of coolers/boxes	: 2	Temperature	: 1.3'c - Ice present
Receipt Detail	:	No. of samples received / analysed	: 52 / 52

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **(09/11/2022) This is an updated SRN which reflects the addition of PFAS analysis to sample 052.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- **Sample 52 ,0902_MW046_221107,sampled on 7/11/22, has been received as an extra sample.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2240328-028	07-Nov-2022 09:24	0902_SD001_221107	✓	✓
ES2240328-029	08-Nov-2022 08:42	0902_SD002_221108	✓	✓
ES2240328-030	08-Nov-2022 09:03	0902_SD003_221108	✓	✓
ES2240328-031	07-Nov-2022 16:35	0902_SD018_221107	✓	✓
ES2240328-032	07-Nov-2022 13:10	0902_SD019_221107	✓	✓
ES2240328-033	07-Nov-2022 17:10	0902_SD020_221107	✓	✓
ES2240328-034	07-Nov-2022 13:40	0902_SD023_2211	✓	✓
ES2240328-035	07-Nov-2022 16:10	0902_SD030_221107	✓	✓
ES2240328-045	07-Nov-2022 09:20	0902_QC106_221107	✓	✓
ES2240328-049	07-Nov-2022 13:40	0902_QC110_221107	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
ES2240328-001	08-Nov-2022 11:46	0902_MW020_221108		✓		
ES2240328-002	08-Nov-2022 11:19	0902_MW021_221108		✓		
ES2240328-003	08-Nov-2022 10:00	0902_MW022_221108	✓	✓	✓	✓
ES2240328-004	08-Nov-2022 10:42	0902_MW023_221108		✓		
ES2240328-005	07-Nov-2022 10:39	0902_MW025_221107		✓		
ES2240328-006	07-Nov-2022 11:47	0902_MW026_221107		✓		
ES2240328-007	08-Nov-2022 12:18	0902_MW036_221108		✓		
ES2240328-008	07-Nov-2022 08:51	0902_MW056_221107		✓		
ES2240328-009	07-Nov-2022 09:08	0902_MW059_221107		✓		
ES2240328-010	07-Nov-2022 09:55	0902_MW060_221107		✓		
ES2240328-011	07-Nov-2022 10:10	0902_MW061_221107		✓		
ES2240328-012	03-Nov-2022 15:56	0902_MW062_221103		✓		
ES2240328-013	03-Nov-2022 15:44	0902_MW063_221103		✓		

			WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
ES2240328-014	03-Nov-2022 14:55	0902_MW067_221103		✓		
ES2240328-015	03-Nov-2022 13:55	0902_MW068_221103		✓		
ES2240328-016	03-Nov-2022 15:14	0902_MW069_221103		✓		
ES2240328-017	03-Nov-2022 14:25	0902_MW070_221103		✓		
ES2240328-018	03-Nov-2022 14:36	0902_MW071_221103		✓		
ES2240328-019	08-Nov-2022 13:18	0902_MW075_221108	✓	✓	✓	✓
ES2240328-020	08-Nov-2022 13:55	0902_MW078_221108		✓		
ES2240328-021	08-Nov-2022 15:10	0902_MW079_221108		✓		
ES2240328-022	08-Nov-2022 14:29	0902_MW080_221108		✓		
ES2240328-023	07-Nov-2022 15:40	0902_MW091_221107	✓	✓	✓	✓
ES2240328-024	07-Nov-2022 15:27	0902_MW092_221107		✓		
ES2240328-025	08-Nov-2022 14:30	0902_MW106_221108		✓		
ES2240328-026	08-Nov-2022 09:15	0902_MW109_221108		✓		
ES2240328-027	08-Nov-2022 11:33	0902_MW110_221108		✓		
ES2240328-036	08-Nov-2022 08:41	0902_SW002_221108		✓		
ES2240328-037	08-Nov-2022 09:02	0902_SW003_221108	✓	✓	✓	✓
ES2240328-038	07-Nov-2022 16:35	0902_SW018_221107		✓		
ES2240328-039	07-Nov-2022 13:10	0902_SW019_221107		✓		
ES2240328-040	07-Nov-2022 17:16	0902_SW020_221107	✓	✓	✓	✓
ES2240328-041	07-Nov-2022 13:40	0902_SW023_221107	✓	✓	✓	✓
ES2240328-042	07-Nov-2022 16:09	0902_SW030_221107		✓		
ES2240328-043	08-Nov-2022 10:31	0902_SW037_221108		✓		
ES2240328-044	07-Nov-2022 08:47	0902_QC105_221107		✓		
ES2240328-046	07-Nov-2022 09:58	0902_QC107_221107		✓		
ES2240328-047	07-Nov-2022 10:35	0902_QC108_221107		✓		
ES2240328-048	07-Nov-2022 13:10	0902_QC109_221107		✓		
ES2240328-050	08-Nov-2022 15:29	0902_QC303_221108		✓		
ES2240328-051	07-Nov-2022 16:42	0902_QC302_221107		✓		
ES2240328-052	07-Nov-2022 00:00	0902_MW046_221107		✓		

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

ANDREW SPOOR

- *AU Certificate of Analysis - NATA (COA)	Email	Andrew.Spoor@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Andrew.Spoor@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Andrew.Spoor@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Andrew.Spoor@aecom.com
- Chain of Custody (CoC) (COC)	Email	Andrew.Spoor@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Andrew.Spoor@aecom.com
- EDI Format - XTab (XTAB)	Email	Andrew.Spoor@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Andrew.Spoor@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Geoff.Tredinnick@aecom.com

JESSICA ROY

- Chain of Custody (CoC) (COC)	Email	jessica.roy@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	mat.jenkins@aecom.com

NICOLA TOMLIN

- *AU Certificate of Analysis - NATA (COA)	Email	nicola.tomlin@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	nicola.tomlin@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	nicola.tomlin@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	nicola.tomlin@aecom.com
- Chain of Custody (CoC) (COC)	Email	nicola.tomlin@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	nicola.tomlin@aecom.com
- EDI Format - XTab (XTAB)	Email	nicola.tomlin@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	nicola.tomlin@aecom.com

CHAIN OF CUSTODY

(ALS) COC#: 44713 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 08/11/22 17:0 C	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW020_221108		08/11/2022 11:46 AM	Water	ALS: 3 Non ALS: 0	No			X		
002	0902_MW021_221108		08/11/2022 11:19 AM	Water	ALS: 3 Non ALS: 0	No			X		
003	0902_MW022_221108		08/11/2022 10:00 AM	Water	ALS: 6 Non ALS: 0	No	X				
004	0902_MW023_221108		08/11/2022 10:42 AM	Water	ALS: 3 Non ALS: 0	No			X		
005	0902_MW025_221107		07/11/2022 10:39 AM	Water	ALS: 3 Non ALS: 0	No			X		
006	0902_MW026_221107		07/11/2022 11:47 AM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
007	0902_MW036_221108		08/11/2022 12:18 PM	Water	ALS: 3 Non ALS: 0	No			X		
008	0902_MW056_221107		07/11/2022 08:51 AM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
009	0902_MW059_221107		07/11/2022 09:08 AM	Water	ALS: 3 Non ALS: 0	No			X		

Environmental Division Sydney

Work Order Reference

ES2240328

Telephone : + 61-2-8784 8555

HT

CHAIN OF CUSTODY

(ALS) COC#: 44713 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 08/11/22 1700	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_MW060_221107		07/11/2022 09:55 AM	Water	ALS: 3 Non ALS: 0	No			X		
011	0902_MW061_221107		07/11/2022 10:10 AM	Water	ALS: 3 Non ALS: 0	No			X		
012	0902_MW062_221103		03/11/2022 03:56 PM	Water	ALS: 3 Non ALS: 0	No			X		
013	0902_MW063_221103		03/11/2022 03:44 PM	Water	ALS: 5 Non ALS: 0	No			X		extra volume collected for lab qc
014	0902_MW067_221103		03/11/2022 02:55 PM	Water	ALS: 3 Non ALS: 0	No			X		Extra volume
015	0902_MW068_221103		03/11/2022 01:55 PM	Water	ALS: 3 Non ALS: 0	No			X		
016	0902_MW069_221103		03/11/2022 03:14 PM	Water	ALS: 3 Non ALS: 0	No			X		
017	0902_MW070_221103		03/11/2022 02:25 PM	Water	ALS: 3 Non ALS: 0	No			X		
018	0902_MW071_221103		03/11/2022 02:36 PM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume

CHAIN OF CUSTODY

ALS COC#: 44713 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 08/11/22 1750	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0902_MW075_221108		08/11/2022 01:18 PM	Water	ALS: 8 Non ALS: 0	No	X				Extra volume collected
020	0902_MW078_221108		08/11/2022 01:55 PM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
021	0902_MW079_221108		08/11/2022 03:10 PM	Water	ALS: 3 Non ALS: 0	No			X		
022	0902_MW080_221108		08/11/2022 02:29 PM	Water	ALS: 3 Non ALS: 0	No			X		
023	0902_MW091_221107		07/11/2022 03:40 PM	Water	ALS: 8 Non ALS: 0	No	X				
024	0902_MW092_221107		07/11/2022 03:27 PM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
025	0902_MW106_221108		08/11/2022 02:30 PM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
026	0902_MW109_221108		08/11/2022 09:15 AM	Water	ALS: 3 Non ALS: 0	No			X		
027	0902_MW110_221108		08/11/2022 11:33 AM	Water	ALS: 3 Non ALS: 0	No			X		

CHAIN OF CUSTODY

(ALS) COC#: 44713 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 08/11/22 1700	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

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QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
028	0902_SD001_221107		07/11/2022 09:24 AM	Soil	ALS: 1 Non ALS: 0	No		X			
029	0902_SD002_221108		08/11/2022 08:42 AM	Soil	ALS: 1 Non ALS: 0	No		X			
030	0902_SD003_221108		08/11/2022 09:03 AM	Soil	ALS: 1 Non ALS: 0	No		X			
031	0902_SD018_221107		07/11/2022 04:35 PM	Soil	ALS: 1 Non ALS: 0	No		X			
032	0902_SD019_221107		07/11/2022 01:10 PM	Soil	ALS: 1 Non ALS: 0	No		X			
033	0902_SD020_221107		07/11/2022 05:10 PM	Soil	ALS: 1 Non ALS: 0	No		X			
034	0902_SD023_2211		07/11/2022 01:40 PM	Soil	ALS: 1 Non ALS: 0	No		X			
035	0902_SD030_221107		07/11/2022 04:10 PM	Soil	ALS: 1 Non ALS: 0	No		X			
036	0902_SW002_221108		08/11/2022 08:41 AM	Water	ALS: 3 Non ALS: 0	No			X		

CHAIN OF CUSTODY

(ALS) COC#: 44713 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 08/11/22 1720	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
037	0902_SW003_221108		08/11/2022 09:02 AM	Water	ALS: 6 Non ALS: 0	No	X				
038	0902_SW018_221107		07/11/2022 04:35 PM	Water	ALS: 3 Non ALS: 0	No			X		
039	0902_SW019_221107		07/11/2022 01:10 PM	Water	ALS: 3 Non ALS: 0	No			X		
040	0902_SW020_221107		07/11/2022 05:16 PM	Water	ALS: 8 Non ALS: 0	No	X				Extra volume
041	0902_SW023_221107		07/11/2022 01:40 PM	Water	ALS: 8 Non ALS: 0	No	X				Extra volume
042	0902_SW030_221107		07/11/2022 04:09 PM	Water	ALS: 3 Non ALS: 0	No			X		
043	0902_SW037_221108		08/11/2022 10:31 AM	Water	ALS: 3 Non ALS: 0	No			X		
044	0902_QC105_221107		07/11/2022 08:47 AM	Water	ALS: 3 Non ALS: 0	No			X		Extra volume
045	0902_QC106_221107		07/11/2022 09:20 AM	Soil	ALS: 1 Non ALS: 0	No		X			

CHAIN OF CUSTODY

(ALS) COC#: 44713 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 08/11/22 1700	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
046	0902_QC107_221107		07/11/2022 09:58 AM	Water	ALS: 3 Non ALS: 0	No			X		
047	0902_QC108_221107		07/11/2022 10:35 AM	Water	ALS: 3 Non ALS: 0	No			X		
048	0902_QC109_221107		07/11/2022 01:10 PM	Water	ALS: 3 Non ALS: 0	No			X		
049	0902_QC110_221107		07/11/2022 01:40 PM	Soil	ALS: 1 Non ALS: 0	No		X			
050	0902_QC303_221108		08/11/2022 03:29 PM	Water	ALS: 3 Non ALS: 0	No			X		
051	0902_QC302_221107		07/11/2022 04:42 PM	Water	ALS: 3 Non ALS: 0	No			X		

CHAIN OF CUSTODY

(ALS) COC#: 44713 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 08/11/22 1700	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW020_221108	HDPE (no PTFE)	20 mL	00350821029008	Grey	No	
001	0902_MW020_221108	HDPE (no PTFE)	20 mL	00350821028987	Grey	No	
001	0902_MW020_221108	HDPE (no PTFE)	20 mL	00350821029017	Grey	No	
002	0902_MW021_221108	HDPE (no PTFE)	20 mL	00350821029182	Grey	No	
002	0902_MW021_221108	HDPE (no PTFE)	20 mL	00350522040061	Grey	No	
002	0902_MW021_221108	HDPE (no PTFE)	20 mL	00350821029189	Grey	No	
003	0902_MW022_221108	Clear Plastic Bottle - Natural	500 mL	00070121127853	Green	No	
003	0902_MW022_221108	HDPE (no PTFE)	20 mL	00350821029147	Grey	No	
003	0902_MW022_221108	HDPE (no PTFE)	20 mL	00350821029217	Grey	No	
003	0902_MW022_221108	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522018564	Purple	No	
003	0902_MW022_221108	HDPE (no PTFE)	20 mL	00350821029221	Grey	No	
003	0902_MW022_221108	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522038367	Red	Yes	
004	0902_MW023_221108	HDPE (no PTFE)	20 mL	00350821029010	Grey	No	
004	0902_MW023_221108	HDPE (no PTFE)	20 mL	00350821028982	Grey	No	
004	0902_MW023_221108	HDPE (no PTFE)	20 mL	00350821029230	Grey	No	
005	0902_MW025_221107	HDPE (no PTFE)	20 mL	00350821029154	Grey	No	
005	0902_MW025_221107	HDPE (no PTFE)	20 mL	00350821029177	Grey	No	
005	0902_MW025_221107	HDPE (no PTFE)	20 mL	00350821029175	Grey	No	
006	0902_MW026_221107	HDPE (no PTFE)	20 mL	00350821029089	Grey	No	
006	0902_MW026_221107	HDPE (no PTFE)	20 mL	00350821029133	Grey	No	
006	0902_MW026_221107	HDPE (no PTFE)	20 mL	00350522039898	Grey	No	
006	0902_MW026_221107	HDPE (no PTFE)	20 mL	00350821028972	Grey	No	
006	0902_MW026_221107	HDPE (no PTFE)	20 mL	00350522040100	Grey	No	
007	0902_MW036_221108	HDPE (no PTFE)	20 mL	00350821029226	Grey	No	
007	0902_MW036_221108	HDPE (no PTFE)	20 mL	00350821029191	Grey	No	
007	0902_MW036_221108	HDPE (no PTFE)	20 mL	00350821028995	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 44713 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 08/11/22 17:00	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Jack Rawsthorne QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

008	0902_MW056_221107	HDPE (no PTFE)	20 mL	00350821029144	Grey	No	
008	0902_MW056_221107	HDPE (no PTFE)	20 mL	00350821029219	Grey	No	
008	0902_MW056_221107	HDPE (no PTFE)	20 mL	00350522039786	Grey	No	
008	0902_MW056_221107	HDPE (no PTFE)	20 mL	00350522039647	Grey	No	
008	0902_MW056_221107	HDPE (no PTFE)	20 mL	00350821029196	Grey	No	
009	0902_MW059_221107	HDPE (no PTFE)	20 mL	00350821029160	Grey	No	
009	0902_MW059_221107	HDPE (no PTFE)	20 mL	00350821029181	Grey	No	
009	0902_MW059_221107	HDPE (no PTFE)	20 mL	00350821029211	Grey	No	
010	0902_MW060_221107	HDPE (no PTFE)	20 mL	00350821009548	Grey	No	
010	0902_MW060_221107	HDPE (no PTFE)	20 mL	00350821009495	Grey	No	
010	0902_MW060_221107	HDPE (no PTFE)	20 mL	00350821028990	Grey	No	
011	0902_MW061_221107	HDPE (no PTFE)	20 mL	00350522040140	Grey	No	
011	0902_MW061_221107	HDPE (no PTFE)	20 mL	00350821029162	Grey	No	
011	0902_MW061_221107	HDPE (no PTFE)	20 mL	00350522039706	Grey	No	
012	0902_MW062_221103	HDPE (no PTFE)	20 mL	00350522040105	Grey	No	
012	0902_MW062_221103	HDPE (no PTFE)	20 mL	00350522039793	Grey	No	
012	0902_MW062_221103	HDPE (no PTFE)	20 mL	00350522039808	Grey	No	
013	0902_MW063_221103	HDPE (no PTFE)	20 mL	00350522039760	Grey	No	
013	0902_MW063_221103	HDPE (no PTFE)	20 mL	00350522039794	Grey	No	
013	0902_MW063_221103	HDPE (no PTFE)	20 mL	00350522039844	Grey	No	
013	0902_MW063_221103	HDPE (no PTFE)	20 mL	00350522039882	Grey	No	
013	0902_MW063_221103	HDPE (no PTFE)	20 mL	00350522039662	Grey	No	
014	0902_MW067_221103	HDPE (no PTFE)	20 mL	00350522040180	Grey	No	
014	0902_MW067_221103	HDPE (no PTFE)	20 mL	00350522039896	Grey	No	
014	0902_MW067_221103	HDPE (no PTFE)	20 mL	00350522039917	Grey	No	
015	0902_MW068_221103	HDPE (no PTFE)	20 mL	00350522040080	Grey	No	
015	0902_MW068_221103	HDPE (no PTFE)	20 mL	00350522040217	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 44713 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 08/11/22 17:00	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

015	0902_MW068_221103	HDPE (no PTFE)	20 mL	00350522039869	Grey	No	
016	0902_MW069_221103	HDPE (no PTFE)	20 mL	00350522039770	Grey	No	
016	0902_MW069_221103	HDPE (no PTFE)	20 mL	00350522040142	Grey	No	
016	0902_MW069_221103	HDPE (no PTFE)	20 mL	00350522039946	Grey	No	
017	0902_MW070_221103	HDPE (no PTFE)	20 mL	00350522039960	Grey	No	
017	0902_MW070_221103	HDPE (no PTFE)	20 mL	00350522039819	Grey	No	
017	0902_MW070_221103	HDPE (no PTFE)	20 mL	00350522040019	Grey	No	
018	0902_MW071_221103	HDPE (no PTFE)	20 mL	00350821009587	Grey	No	
018	0902_MW071_221103	HDPE (no PTFE)	20 mL	00350522040112	Grey	No	
018	0902_MW071_221103	HDPE (no PTFE)	20 mL	00350821009501	Grey	No	
018	0902_MW071_221103	HDPE (no PTFE)	20 mL	00350522040044	Grey	No	
018	0902_MW071_221103	HDPE (no PTFE)	20 mL	00350522039661	Grey	No	
019	0902_MW075_221108	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522037915	Purple	No	
019	0902_MW075_221108	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522039261	Red	Yes	
019	0902_MW075_221108	HDPE (no PTFE)	20 mL	00350621006746	Grey	No	
019	0902_MW075_221108	HDPE (no PTFE)	20 mL	00350621006398	Grey	No	
019	0902_MW075_221108	HDPE (no PTFE)	20 mL	00350621006733	Grey	No	
019	0902_MW075_221108	HDPE (no PTFE)	20 mL	00350621006539	Grey	No	
019	0902_MW075_221108	HDPE (no PTFE)	20 mL	00350621006304	Grey	No	
019	0902_MW075_221108	Clear Plastic Bottle - Natural	500 mL	00070121127835	Green	No	
020	0902_MW078_221108	HDPE (no PTFE)	20 mL	00350621006524	Grey	No	
020	0902_MW078_221108	HDPE (no PTFE)	20 mL	00350621006321	Grey	No	
020	0902_MW078_221108	HDPE (no PTFE)	20 mL	00350621006436	Grey	No	
020	0902_MW078_221108	HDPE (no PTFE)	20 mL	00350621006266	Grey	No	
020	0902_MW078_221108	HDPE (no PTFE)	20 mL	00350621006548	Grey	No	
021	0902_MW079_221108	HDPE (no PTFE)	20 mL	00350821029015	Grey	No	
021	0902_MW079_221108	HDPE (no PTFE)	20 mL	00350821029019	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 44713 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 08/11/22 17:00	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

021	0902_MW079_221108	HDPE (no PTFE)	20 mL	00350821029206	Grey	No	
022	0902_MW080_221108	HDPE (no PTFE)	20 mL	00350621006490	Grey	No	
022	0902_MW080_221108	HDPE (no PTFE)	20 mL	00350621006302	Grey	No	
022	0902_MW080_221108	HDPE (no PTFE)	20 mL	00350621006233	Grey	No	
023	0902_MW091_221107	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522018849	Purple	No	
023	0902_MW091_221107	HDPE (no PTFE)	20 mL	00350821029018	Grey	No	
023	0902_MW091_221107	HDPE (no PTFE)	20 mL	00350522040056	Grey	No	
023	0902_MW091_221107	HDPE (no PTFE)	20 mL	00350522039976	Grey	No	
023	0902_MW091_221107	HDPE (no PTFE)	20 mL	00350821029123	Grey	No	
023	0902_MW091_221107	HDPE (no PTFE)	20 mL	00350821029148	Grey	No	
023	0902_MW091_221107	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522038315	Red	Yes	
023	0902_MW091_221107	Clear Plastic Bottle - Natural	500 mL	00070121127861	Green	No	
024	0902_MW092_221107	HDPE (no PTFE)	20 mL	00350522040054	Grey	No	
024	0902_MW092_221107	HDPE (no PTFE)	20 mL	00350522040220	Grey	No	
024	0902_MW092_221107	HDPE (no PTFE)	20 mL	00350821029057	Grey	No	
024	0902_MW092_221107	HDPE (no PTFE)	20 mL	00350522039975	Grey	No	
024	0902_MW092_221107	HDPE (no PTFE)	20 mL	00350522040187	Grey	No	
025	0902_MW106_221108	HDPE (no PTFE)	20 mL	00350621006560	Grey	No	
025	0902_MW106_221108	HDPE (no PTFE)	20 mL	00350621006757	Grey	No	
025	0902_MW106_221108	HDPE (no PTFE)	20 mL	00350621006615	Grey	No	
025	0902_MW106_221108	HDPE (no PTFE)	20 mL	00350621006585	Grey	No	
025	0902_MW106_221108	HDPE (no PTFE)	20 mL	00350621006579	Grey	No	
026	0902_MW109_221108	HDPE (no PTFE)	20 mL	00350821029117	Grey	No	
026	0902_MW109_221108	HDPE (no PTFE)	20 mL	00350821028983	Grey	No	
026	0902_MW109_221108	HDPE (no PTFE)	20 mL	00350821028976	Grey	No	
027	0902_MW110_221108	HDPE (no PTFE)	20 mL	00350821029213	Grey	No	
027	0902_MW110_221108	HDPE (no PTFE)	20 mL	00350821029086	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 44713 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 08/11/22 1700	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A

Random Sample Temperature on Receipt: °C

Other comments:

027	0902_MW110_221108	HDPE (no PTFE)	20 mL	00350821029095	Grey	No	
028	0902_SD001_221107	HDPE Soil Jar	200 mL	00621121013711	Grey	No	
029	0902_SD002_221108	HDPE Soil Jar	200 mL	00620322104547	Grey	No	
030	0902_SD003_221108	HDPE Soil Jar	200 mL	00620322104437	Grey	No	
031	0902_SD018_221107	HDPE Soil Jar	200 mL	00620322104513	Grey	No	
032	0902_SD019_221107	HDPE Soil Jar	200 mL	00620322104496	Grey	No	
033	0902_SD020_221107	HDPE Soil Jar	200 mL	00620322104453	Grey	No	
034	0902_SD023_2211	HDPE Soil Jar	200 mL	00620322104469	Grey	No	
035	0902_SD030_221107	HDPE Soil Jar	200 mL	00620322104502	Grey	No	
036	0902_SW002_221108	HDPE (no PTFE)	20 mL	00350821029165	Grey	No	
036	0902_SW002_221108	HDPE (no PTFE)	20 mL	00350821029145	Grey	No	
036	0902_SW002_221108	HDPE (no PTFE)	20 mL	00350821029155	Grey	No	
037	0902_SW003_221108	Clear Plastic Bottle - Natural	500 mL	00070121127852	Green	No	
037	0902_SW003_221108	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522018311	Purple	No	
037	0902_SW003_221108	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522038316	Red	Yes	
037	0902_SW003_221108	HDPE (no PTFE)	20 mL	00350821029152	Grey	No	
037	0902_SW003_221108	HDPE (no PTFE)	20 mL	00350821029225	Grey	No	
037	0902_SW003_221108	HDPE (no PTFE)	20 mL	00350821029192	Grey	No	
038	0902_SW018_221107	HDPE (no PTFE)	20 mL	00350522039932	Grey	No	
038	0902_SW018_221107	HDPE (no PTFE)	20 mL	00350522039812	Grey	No	
038	0902_SW018_221107	HDPE (no PTFE)	20 mL	00350522039763	Grey	No	
039	0902_SW019_221107	HDPE (no PTFE)	20 mL	00350522040094	Grey	No	
039	0902_SW019_221107	HDPE (no PTFE)	20 mL	00350821029158	Grey	No	
039	0902_SW019_221107	HDPE (no PTFE)	20 mL	00350821029069	Grey	No	
040	0902_SW020_221107	Clear Plastic Bottle - Natural	500 mL	00070121127850	Green	No	
040	0902_SW020_221107	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522037913	Purple	No	
040	0902_SW020_221107	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522038357	Red	Yes	

CHAIN OF CUSTODY

(ALS) COC#: 44713 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 08/11/22 17:00	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

040	0902_SW020_221107	HDPE (no PTFE)	20 mL	00350821029214	Grey	No	
040	0902_SW020_221107	HDPE (no PTFE)	20 mL	00350821029022	Grey	No	
040	0902_SW020_221107	HDPE (no PTFE)	20 mL	00350821029006	Grey	No	
040	0902_SW020_221107	HDPE (no PTFE)	20 mL	00350821029053	Grey	No	
040	0902_SW020_221107	HDPE (no PTFE)	20 mL	00350821028977	Grey	No	
041	0902_SW023_221107	Clear Plastic Bottle - Nitric Acid: Unfiltered	60 mL	00120522037768	Red	Yes	
041	0902_SW023_221107	Clear Plastic Bottle - Natural	500 mL	00070121127829	Green	No	
041	0902_SW023_221107	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100322023199	Purple	No	
041	0902_SW023_221107	HDPE (no PTFE)	20 mL	00350821029205	Grey	No	
041	0902_SW023_221107	HDPE (no PTFE)	20 mL	00350821029150	Grey	No	
041	0902_SW023_221107	HDPE (no PTFE)	20 mL	00350821029134	Grey	No	
041	0902_SW023_221107	HDPE (no PTFE)	20 mL	00350821029198	Grey	No	
041	0902_SW023_221107	HDPE (no PTFE)	20 mL	00350821029115	Grey	No	
042	0902_SW030_221107	HDPE (no PTFE)	20 mL	00350522040125	Grey	No	
042	0902_SW030_221107	HDPE (no PTFE)	20 mL	00350522039855	Grey	No	
042	0902_SW030_221107	HDPE (no PTFE)	20 mL	00350821029041	Grey	No	
043	0902_SW037_221108	HDPE (no PTFE)	20 mL	00350821029149	Grey	No	
043	0902_SW037_221108	HDPE (no PTFE)	20 mL	00350821029167	Grey	No	
043	0902_SW037_221108	HDPE (no PTFE)	20 mL	00350522039967	Grey	No	
044	0902_QC105_221107	HDPE (no PTFE)	20 mL	00350522040117	Grey	No	
044	0902_QC105_221107	HDPE (no PTFE)	20 mL	00350821029116	Grey	No	
044	0902_QC105_221107	HDPE (no PTFE)	20 mL	00350821009409	Grey	No	
045	0902_QC106_221107	HDPE Soil Jar	200 mL	00620322104546	Grey	No	
046	0902_QC107_221107	HDPE (no PTFE)	20 mL	00350821029084	Grey	No	
046	0902_QC107_221107	HDPE (no PTFE)	20 mL	00350522039905	Grey	No	
046	0902_QC107_221107	HDPE (no PTFE)	20 mL	00350821029151	Grey	No	
047	0902_QC108_221107	HDPE (no PTFE)	20 mL	00350821029143	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 44713 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 05/11/22 17:00	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_221108

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Jack Rawsthorne QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

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047	0902_QC108_221107	HDPE (no PTFE)	20 mL	00350821029223	Grey	No	
047	0902_QC108_221107	HDPE (no PTFE)	20 mL	00350821029073	Grey	No	
048	0902_QC109_221107	HDPE (no PTFE)	20 mL	00350821029067	Grey	No	
048	0902_QC109_221107	HDPE (no PTFE)	20 mL	00350821029212	Grey	No	
048	0902_QC109_221107	HDPE (no PTFE)	20 mL	00350522039897	Grey	No	
049	0902_QC110_221107	HDPE Soil Jar	200 mL	00620322036243	Grey	No	
050	0902_QC303_221108	HDPE (no PTFE)	20 mL	00350821029121	Grey	No	
050	0902_QC303_221108	HDPE (no PTFE)	20 mL	00350821029097	Grey	No	
050	0902_QC303_221108	HDPE (no PTFE)	20 mL	00350821029204	Grey	No	
051	0902_QC302_221107	HDPE (no PTFE)	20 mL	00350821028964	Grey	No	
051	0902_QC302_221107	HDPE (no PTFE)	20 mL	00350821029104	Grey	No	
051	0902_QC302_221107	HDPE (no PTFE)	20 mL	00350821029039	Grey	No	

Total Bottle Count: ALS: 173, Non ALS: 0

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2240927**	Page	: 1 of 30
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 11-Nov-2022 16:00
Order number	: 60612562_5.1	Date Analysis Commenced	: 11-Nov-2022
C-O-C number	: 44837	Issue Date	: 18-Nov-2022 15:50
Sampler	: JACK RAWSTHORNE, JESSICA ROY, MAT JENKINS		
Site	: 0902 11/11/22		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 44		
No. of samples analysed	: 44		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO2 and Fluoride to the Anions.
- EG020: Bromine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- EP231X: Particular samples required dilution due to the presence of high level contaminants. LOR values have been adjusted accordingly.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW001_221111	0902_MW002_221111	0902_MW004_221111	0902_MW005_221111	0902_MW016_221111
				Sampling date / time	11-Nov-2022 12:15	11-Nov-2022 11:20	11-Nov-2022 09:45	11-Nov-2022 09:10	11-Nov-2022 08:25
					ES2240927-001	ES2240927-002	ES2240927-003	ES2240927-004	ES2240927-005
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	----	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	----	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		**177**	----	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L		**177**	----	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		**52**	----	----	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		**239**	----	----	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		**49**	----	----	----	----
Magnesium	7439-95-4	1	mg/L		**33**	----	----	----	----
Sodium	7440-23-5	1	mg/L		**123**	----	----	----	----
Potassium	7440-09-7	1	mg/L		<1	----	----	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		**0.057**	----	----	----	----
Iron	7439-89-6	0.05	mg/L		<0.05	----	----	----	----
Bromine	7726-95-6	0.1	mg/L		**0.6**	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		<0.01	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		**0.01**	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		**0.01**	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		**0.2**	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ **Total Nitrogen as N**	----	0.1	mg/L		**0.2**	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		**0.13**	----	----	----	----
EN055: Ionic Balance									

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW001_221111	0902_MW002_221111	0902_MW004_221111	0902_MW005_221111	0902_MW016_221111
				Sampling date / time	11-Nov-2022 12:15	11-Nov-2022 11:20	11-Nov-2022 09:45	11-Nov-2022 09:10	11-Nov-2022 08:25
					ES2240927-001	ES2240927-002	ES2240927-003	ES2240927-004	ES2240927-005
					Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued									
ø **Total Anions**	----	0.01	meq/L		**11.4**	----	----	----	----
ø **Total Cations**	----	0.01	meq/L		**10.5**	----	----	----	----
ø **Ionic Balance**	----	0.01	%		**3.88**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.10**	<0.01	<0.01	**0.05**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.03**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW001_221111	0902_MW002_221111	0902_MW004_221111	0902_MW005_221111	0902_MW016_221111
				Sampling date / time	11-Nov-2022 12:15	11-Nov-2022 11:20	11-Nov-2022 09:45	11-Nov-2022 09:10	11-Nov-2022 08:25
Compound	CAS Number	LOR	Unit		ES2240927-001	ES2240927-002	ES2240927-003	ES2240927-004	ES2240927-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.10**	<0.01	<0.01	**0.08**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.10**	<0.01	<0.01	**0.08**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.10**	<0.01	<0.01	**0.08**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**90.8**	**107**	**104**	**95.2**	**91.9**
13C8-PFOA	----	0.02	%		**101**	**99.2**	**92.6**	**100**	**102**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW030_221111	0902_MW032_221110	0902_MW033_221110	0902_MW034_221110	0902_MW053_221110
				Sampling date / time	11-Nov-2022 07:12	10-Nov-2022 10:30	10-Nov-2022 10:45	10-Nov-2022 10:20	10-Nov-2022 17:25
					ES2240927-006	ES2240927-007	ES2240927-008	ES2240927-009	ES2240927-010
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.25**	**2.05**	<0.02	**0.26**	**0.20**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.23**	**2.09**	<0.02	**0.28**	**0.29**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**1.47**	**13.1**	**0.03**	**1.36**	**2.00**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.05**	**0.30**	<0.02	**0.03**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.75**	**3.63**	**0.25**	**0.26**	**0.03**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.6**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.05**	**0.44**	<0.02	**0.07**	**0.06**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.25**	**2.40**	**0.02**	**0.31**	**0.24**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.05**	**0.25**	<0.02	**0.05**	**0.06**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.12**	**0.42**	**0.01**	**0.06**	**0.10**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW030_221111	0902_MW032_221110	0902_MW033_221110	0902_MW034_221110	0902_MW053_221110
				Sampling date / time	11-Nov-2022 07:12	10-Nov-2022 10:30	10-Nov-2022 10:45	10-Nov-2022 10:20	10-Nov-2022 17:25
Compound	CAS Number	LOR	Unit		ES2240927-006	ES2240927-007	ES2240927-008	ES2240927-009	ES2240927-010
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**3.22**	**25.3**	**0.31**	**2.68**	**2.98**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**2.22**	**16.7**	**0.28**	**1.62**	**2.03**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**2.94**	**22.9**	**0.31**	**2.37**	**2.69**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**93.2**	**110**	**85.1**	**95.5**	**95.3**
13C8-PFOA	----	0.02	%		**98.3**	**109**	**100**	**103**	**104**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW054_221110	0902_MW057_221110	0902_MW058_221110	0902_MW072_221110	0902_MW073_221110
				Sampling date / time	10-Nov-2022 16:45	10-Nov-2022 17:15	10-Nov-2022 16:30	10-Nov-2022 10:10	10-Nov-2022 09:30
					ES2240927-011	ES2240927-012	ES2240927-013	ES2240927-014	ES2240927-015
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.10**	**0.12**	**0.92**	**13.0**	**0.27**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.09**	**0.12**	**0.73**	**13.2**	**0.93**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.41**	**1.08**	**2.10**	**103**	**22.7**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.03**	**0.06**	**6.69**	**2.56**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.25**	**0.26**	**110**	**1.61**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.1**	**0.2**	**2.3**	**0.3**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.10**	**0.32**	**2.86**	**0.22**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.07**	**0.22**	**1.50**	**15.6**	**1.33**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.05**	**0.26**	**1.74**	**0.20**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.08**	**0.30**	**5.04**	**1.81**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.12	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.12	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.12	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW054_221110	0902_MW057_221110	0902_MW058_221110	0902_MW072_221110	0902_MW073_221110
				Sampling date / time	10-Nov-2022 16:45	10-Nov-2022 17:15	10-Nov-2022 16:30	10-Nov-2022 10:10	10-Nov-2022 09:30
Compound	CAS Number	LOR	Unit		ES2240927-011	ES2240927-012	ES2240927-013	ES2240927-014	ES2240927-015
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.12	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.12	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.05	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.67**	**2.15**	**6.65**	**273**	**31.9**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.41**	**1.33**	**2.36**	**213**	**24.3**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.58**	**2.00**	**5.86**	**254**	**28.4**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**98.6**	**96.5**	**87.3**	**104**	**91.0**
13C8-PFOA	----	0.02	%		**103**	**96.1**	**96.8**	**101**	**92.6**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW074_221110	0902_MW076_221110	0902_MW077_221110	0902_MW107D_221110	0902_MW107I_221110
				Sampling date / time	10-Nov-2022 09:40	10-Nov-2022 15:18	10-Nov-2022 15:50	10-Nov-2022 12:00	10-Nov-2022 12:10
					ES2240927-016	ES2240927-017	ES2240927-018	ES2240927-019	ES2240927-020
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**6.45**	<0.02	<0.02	**0.35**	**91.4**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**7.99**	<0.02	<0.02	**0.42**	**120**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**39.2**	**0.04**	**0.03**	**3.43**	**728**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.73**	<0.02	<0.02	**0.10**	**37.4**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**6.32**	<0.01	**0.02**	**1.16**	**370**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.14**
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**4.5**	<0.1	<0.1	<0.1	**26.6**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**1.89**	<0.02	<0.02	**0.14**	**41.2**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**10.2**	<0.02	<0.02	**0.73**	**227**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**1.02**	<0.02	<0.02	**0.10**	**40.4**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**1.44**	<0.01	<0.01	**0.18**	**95.0**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.24**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.05
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.05
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.05
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.05
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.12
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.05
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.12
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.12

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW074_221110	0902_MW076_221110	0902_MW077_221110	0902_MW107D_221110	0902_MW107I_221110
				Sampling date / time	10-Nov-2022 09:40	10-Nov-2022 15:18	10-Nov-2022 15:50	10-Nov-2022 12:00	10-Nov-2022 12:10
					ES2240927-016	ES2240927-017	ES2240927-018	ES2240927-019	ES2240927-020
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.12
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.12
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.05
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	**0.11**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**79.7**	**0.04**	**0.05**	**6.61**	**1780**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**45.5**	**0.04**	**0.05**	**4.59**	**1100**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**71.0**	**0.04**	**0.05**	**6.09**	**1620**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**83.5**	**94.6**	**107**	**95.4**	**98.0**
13C8-PFOA	----	0.02	%		**102**	**100**	**101**	**96.2**	**92.0**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW108_221111	0902_MW111_221111	0902_MW112_221111	0902_MW113_221111	0902_MW114_221111
				Sampling date / time	11-Nov-2022 07:19	11-Nov-2022 09:15	11-Nov-2022 10:00	11-Nov-2022 11:35	11-Nov-2022 12:25
					ES2240927-021	ES2240927-022	ES2240927-023	ES2240927-024	ES2240927-025
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.11**	**0.04**	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.11**	**0.03**	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.45**	**0.09**	<0.01	<0.01	**0.10**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.03**	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.10**	**0.06**	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW108_221111	0902_MW111_221111	0902_MW112_221111	0902_MW113_221111	0902_MW114_221111
				Sampling date / time	11-Nov-2022 07:19	11-Nov-2022 09:15	11-Nov-2022 10:00	11-Nov-2022 11:35	11-Nov-2022 12:25
Compound	CAS Number	LOR	Unit		ES2240927-021	ES2240927-022	ES2240927-023	ES2240927-024	ES2240927-025
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.80**	**0.22**	<0.01	<0.01	**0.10**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.48**	**0.09**	<0.01	<0.01	**0.10**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.69**	**0.19**	<0.01	<0.01	**0.10**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**90.5**	**91.6**	**89.2**	**93.4**	**93.8**
13C8-PFOA	----	0.02	%		**94.8**	**102**	**95.3**	**101**	**97.3**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC111_221110	----	----	----	----
				Sampling date / time	10-Nov-2022 09:45	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2240927-040	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**6.09**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**6.66**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**34.8**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**1.06**	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**7.85**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**4.1**	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**1.85**	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**10.4**	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**1.09**	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**1.45**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC111_221110	----	----	----	----
				Sampling date / time	10-Nov-2022 09:45	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2240927-040	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**75.4**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**42.6**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**67.6**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**89.6**	----	----	----	----
13C8-PFOA	----	0.02	%		**94.4**	----	----	----	----

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)				Sample ID	0902_QC304_221110	0902_QC305_221111	----	----	----
				Sampling date / time	10-Nov-2022 17:45	11-Nov-2022 14:47	----	----	----
Compound	CAS Number	LOR	Unit		ES2240927-043	ES2240927-044	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC304_221110	0902_QC305_221111	----	----	----
				Sampling date / time	10-Nov-2022 17:45	11-Nov-2022 14:47	----	----	----
Compound	CAS Number	LOR	Unit		ES2240927-043	ES2240927-044	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**99.3**	**88.8**	----	----	----
13C8-PFOA	----	0.02	%		**105**	**94.9**	----	----	----

Analytical Results

Sub-Matrix: **SEDIMENT** (Matrix: **SOIL**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SD005_221111	0902_SD007_221111	0902_SD011_221111	0902_SD014_221111	0902_SD015_221110
				Sampling date / time	11-Nov-2022 10:40	11-Nov-2022 11:45	11-Nov-2022 13:32	11-Nov-2022 09:00	10-Nov-2022 14:35
					ES2240927-026	ES2240927-027	ES2240927-029	ES2240927-030	ES2240927-031
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**47.0**	**46.2**	**32.4**	**47.9**	**43.8**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	**0.0003**	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	**0.0004**	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0003**	**0.0004**	**0.0075**	**0.0021**	**0.0006**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	**0.0006**	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0108**	**0.0045**	**0.0871**	**0.0096**	**0.0030**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	**0.0021**	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	**0.0008**	**0.0003**	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	**0.0004**	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	**0.0006**	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	**0.0028**	**0.0004**	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	**0.0010**	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	**0.0008**	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	**0.0005**	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD005_221111	0902_SD007_221111	0902_SD011_221111	0902_SD014_221111	0902_SD015_221110
				Sampling date / time	11-Nov-2022 10:40	11-Nov-2022 11:45	11-Nov-2022 13:32	11-Nov-2022 09:00	10-Nov-2022 14:35
Compound	CAS Number	LOR	Unit		ES2240927-026	ES2240927-027	ES2240927-029	ES2240927-030	ES2240927-031
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0111**	**0.0049**	**0.105**	**0.0124**	**0.0036**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0111**	**0.0049**	**0.0946**	**0.0117**	**0.0036**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0111**	**0.0049**	**0.0961**	**0.0120**	**0.0036**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**97.5**	**79.0**	**81.5**	**88.5**	**75.5**
13C8-PFOA	----	0.0002	%		**97.0**	**102**	**96.5**	**94.0**	**102**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD016_221110	----	----	----	----
				Sampling date / time	10-Nov-2022 13:45	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2240927-032	--------	--------	--------	--------
					Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**31.2**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0004**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0069**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	----	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD016_221110	----	----	----	----
				Sampling date / time	10-Nov-2022 13:45	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2240927-032	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0073**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0073**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0073**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**80.0**	----	----	----	----
13C8-PFOA	----	0.0002	%		**106**	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	0902_SD008_221111	----	----	----	----
			Sampling date / time	11-Nov-2022 12:45	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2240927-028	--------	--------	--------	--------
				Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**55.4**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0024**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0209**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	**0.0003**	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	0902_SD008_221111	----	----	----	----
				Sampling date / time	11-Nov-2022 12:45	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2240927-028	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0236**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0233**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0233**	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**66.5**	----	----	----	----
13C8-PFOA	----	0.0002	%		**91.5**	----	----	----	----

Analytical Results

Sub-Matrix: **SURFACE WATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_SW005_221111	0902_SW007_221111	0902_SW008_221111	0902_SW011_221111	0902_SW014_221111
				Sampling date / time	11-Nov-2022 10:36	11-Nov-2022 11:45	11-Nov-2022 12:40	11-Nov-2022 13:31	11-Nov-2022 08:49
					ES2240927-033	ES2240927-034	ES2240927-035	ES2240927-036	ES2240927-037
					Result	Result	Result	Result	Result
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		----	----	<1	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		----	----	<1	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		----	----	103	----	----
Total Alkalinity as CaCO3	----	1	mg/L		----	----	103	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		----	----	42	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		----	----	428	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		----	----	35	----	----
Magnesium	7439-95-4	1	mg/L		----	----	40	----	----
Sodium	7440-23-5	1	mg/L		----	----	212	----	----
Potassium	7440-09-7	1	mg/L		----	----	9	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		----	----	0.03	----	----
Manganese	7439-96-5	0.001	mg/L		----	----	1.38	----	----
Iron	7439-89-6	0.05	mg/L		----	----	0.36	----	----
Bromine	7726-95-6	0.1	mg/L		----	----	1.1	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		----	----	0.62	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		----	----	0.02	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		----	----	0.04	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	0.06	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	----	1.4	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	----	1.5	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	0.13	----	----
EN055: Ionic Balance									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0902_SW005_221111	0902_SW007_221111	0902_SW008_221111	0902_SW011_221111	0902_SW014_221111
			Sampling date / time	11-Nov-2022 10:36	11-Nov-2022 11:45	11-Nov-2022 12:40	11-Nov-2022 13:31	11-Nov-2022 08:49
Compound	CAS Number	LOR	Unit	ES2240927-033	ES2240927-034	ES2240927-035	ES2240927-036	ES2240927-037
				Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued								
ø Total Anions	----	0.01	meq/L	----	----	**15.0**	----	----
ø Total Cations	----	0.01	meq/L	----	----	**14.5**	----	----
ø Ionic Balance	----	0.01	%	----	----	**1.75**	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	**0.02**	**0.58**	**0.10**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	**0.02**	**0.67**	**0.14**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.08**	**0.15**	**0.16**	**5.44**	**1.28**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	**0.36**	**0.05**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.19**	**0.14**	**0.20**	**11.9**	**1.05**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	**0.1**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	**0.28**	**0.06**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	**0.03**	**1.16**	**0.35**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	**0.20**	**0.03**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	**0.01**	**0.42**	**0.06**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW005_221111	0902_SW007_221111	0902_SW008_221111	0902_SW011_221111	0902_SW014_221111
				Sampling date / time	11-Nov-2022 10:36	11-Nov-2022 11:45	11-Nov-2022 12:40	11-Nov-2022 13:31	11-Nov-2022 08:49
Compound	CAS Number	LOR	Unit		ES2240927-033	ES2240927-034	ES2240927-035	ES2240927-036	ES2240927-037
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	**0.10**	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.27**	**0.29**	**0.44**	**21.2**	**3.12**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.27**	**0.29**	**0.36**	**17.3**	**2.33**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.27**	**0.29**	**0.42**	**20.2**	**2.93**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**97.7**	**83.9**	**82.2**	**82.9**	**96.3**
13C8-PFOA	----	0.02	%		**102**	**98.8**	**102**	**96.0**	**98.8**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW015_221110	0902_SW016_221110	0902_QC112_221111	0902_QC113_221111	----
				Sampling date / time	10-Nov-2022 14:35	10-Nov-2022 01:45	10-Nov-2022 13:45	11-Nov-2022 12:50	----
Compound	CAS Number	LOR	Unit		ES2240927-038	ES2240927-039	ES2240927-041	ES2240927-042	--------
					Result	Result	Result	Result	----
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	<1	<1	<1	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		508	224	224	102	----
Total Alkalinity as CaCO3	----	1	mg/L		508	224	224	102	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		56	7	7	46	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		484	181	184	460	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		66	47	48	35	----
Magnesium	7439-95-4	1	mg/L		64	26	27	40	----
Sodium	7440-23-5	1	mg/L		342	104	103	218	----
Potassium	7440-09-7	1	mg/L		4	12	12	9	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		0.01	0.01	0.01	0.03	----
Manganese	7439-96-5	0.001	mg/L		0.415	0.413	0.414	1.39	----
Iron	7439-89-6	0.05	mg/L		0.07	0.16	0.16	0.37	----
Bromine	7726-95-6	0.1	mg/L		1.7	0.8	0.7	1.1	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		0.03	0.04	0.03	0.60	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	<0.01	<0.01	0.02	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		0.03	0.02	0.02	0.04	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		0.03	0.02	0.02	0.06	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		1.4	1.3	1.3	1.5	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		1.4	1.3	1.3	1.6	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		0.22	0.09	0.10	0.11	----
EN055: Ionic Balance									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0902_SW015_221110	0902_SW016_221110	0902_QC112_221111	0902_QC113_221111	----
			Sampling date / time	10-Nov-2022 14:35	10-Nov-2022 01:45	10-Nov-2022 13:45	11-Nov-2022 12:50	----
Compound	CAS Number	LOR	Unit	ES2240927-038	ES2240927-039	ES2240927-041	ES2240927-042	--------
				Result	Result	Result	Result	----
EN055: Ionic Balance - Continued								
ø **Total Anions**	----	0.01	meq/L	**25.0**	**9.73**	**9.81**	**16.0**	**----**
ø **Total Cations**	----	0.01	meq/L	**23.5**	**9.32**	**9.40**	**14.8**	**----**
ø **Ionic Balance**	----	0.01	%	**2.95**	**2.16**	**2.12**	**3.97**	**----**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	**0.05**	**0.05**	<0.02	**----**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	**0.06**	**0.05**	<0.02	**----**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.24**	**0.58**	**0.49**	**0.16**	**----**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.35**	**0.40**	**0.34**	**0.23**	**----**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	**----**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	**0.06**	**0.05**	**0.03**	**----**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	**0.02**	**0.02**	**0.02**	**----**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	**----**
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**----**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW015_221110	0902_SW016_221110	0902_QC112_221111	0902_QC113_221111	----
				Sampling date / time	10-Nov-2022 14:35	10-Nov-2022 01:45	10-Nov-2022 13:45	11-Nov-2022 12:50	----
Compound	CAS Number	LOR	Unit		ES2240927-038	ES2240927-039	ES2240927-041	ES2240927-042	--------
					Result	Result	Result	Result	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.59**	**1.17**	**1.00**	**0.44**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.59**	**0.98**	**0.83**	**0.39**	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.59**	**1.11**	**0.95**	**0.44**	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**95.2**	**84.7**	**86.7**	**93.6**	----
13C8-PFOA	----	0.02	%		**102**	**99.8**	**87.9**	**100**	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **RINSATE**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SEDIMENT**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SURFACE WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2240927**	Page	: 1 of 13
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 11-Nov-2022
Site	: 0902 11/11/22	Issue Date	: 18-Nov-2022
Sampler	: JACK RAWSTHORNE, JESSICA ROY, MAT JENKINS	No. of samples received	: 44
Order number	: 60612562_5.1	No. of samples analysed	: 44

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2240927--026	0902_SD005_221111	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA	ES2240837--001	Anonymous	**Sulfate as SO4 - Turbidimetric**	14808-79-8	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055) 0902_SD015_221110, 0902_SD016_221110	**10-Nov-2022**	**----**	----	----	**15-Nov-2022**	24-Nov-2022	✓
HDPE Soil Jar (EA055) 0902_SD005_221111, 0902_SD007_221111, 0902_SD008_221111, 0902_SD011_221111, 0902_SD014_221111	**11-Nov-2022**	**----**	----	----	**15-Nov-2022**	25-Nov-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD015_221110, 0902_SD016_221110	**10-Nov-2022**	**15-Nov-2022**	09-May-2023	✓	**16-Nov-2022**	25-Dec-2022	✓
HDPE Soil Jar (EP231X) 0902_SD005_221111, 0902_SD007_221111, 0902_SD008_221111, 0902_SD011_221111, 0902_SD014_221111	**11-Nov-2022**	**15-Nov-2022**	10-May-2023	✓	**16-Nov-2022**	25-Dec-2022	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X) 0902_SD015_221110, 0902_SD016_221110	**10-Nov-2022**	**15-Nov-2022**	09-May-2023	✓	**16-Nov-2022**	25-Dec-2022	✓
HDPE Soil Jar (EP231X) 0902_SD005_221111, 0902_SD007_221111, 0902_SD008_221111, 0902_SD011_221111, 0902_SD014_221111	**11-Nov-2022**	**15-Nov-2022**	10-May-2023	✓	**16-Nov-2022**	25-Dec-2022	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0902_SD015_221110, 0902_SD016_221110	**10-Nov-2022**	**15-Nov-2022**	09-May-2023	✓	**16-Nov-2022**	25-Dec-2022	✓
HDPE Soil Jar (EP231X) 0902_SD005_221111, 0902_SD007_221111, 0902_SD008_221111, 0902_SD011_221111, 0902_SD014_221111	**11-Nov-2022**	**15-Nov-2022**	10-May-2023	✓	**16-Nov-2022**	25-Dec-2022	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD015_221110, 0902_SD016_221110	**10-Nov-2022**	**15-Nov-2022**	09-May-2023	✓	**16-Nov-2022**	25-Dec-2022	✓
HDPE Soil Jar (EP231X) 0902_SD005_221111, 0902_SD007_221111, 0902_SD008_221111, 0902_SD011_221111, 0902_SD014_221111	**11-Nov-2022**	**15-Nov-2022**	10-May-2023	✓	**16-Nov-2022**	25-Dec-2022	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) 0902_SD015_221110, 0902_SD016_221110	**10-Nov-2022**	**15-Nov-2022**	09-May-2023	✓	**16-Nov-2022**	25-Dec-2022	✓
HDPE Soil Jar (EP231X) 0902_SD005_221111, 0902_SD007_221111, 0902_SD008_221111, 0902_SD011_221111, 0902_SD014_221111	**11-Nov-2022**	**15-Nov-2022**	10-May-2023	✓	**16-Nov-2022**	25-Dec-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED037P: Alkalinity by PC Titrator							
Clear Plastic Bottle - Natural (ED037-P) 0902_SW015_221110, 0902_SW016_221110, 0902_QC112_221111	**10-Nov-2022**	**----**	----	----	**12-Nov-2022**	24-Nov-2022	✓
Clear Plastic Bottle - Natural (ED037-P) 0902_MW001_221111, 0902_SW008_221111, 0902_QC113_221111	**11-Nov-2022**	**----**	----	----	**12-Nov-2022**	25-Nov-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Clear Plastic Bottle - Natural (ED041G)								
0902_SW015_221110, 0902_QC112_221111	0902_SW016_221110,	**10-Nov-2022**	**----**	----	----	**11-Nov-2022**	08-Dec-2022	✓
Clear Plastic Bottle - Natural (ED041G)								
0902_MW001_221111, 0902_QC113_221111	0902_SW008_221111,	**11-Nov-2022**	**----**	----	----	**11-Nov-2022**	09-Dec-2022	✓
ED045G: Chloride by Discrete Analyser								
Clear Plastic Bottle - Natural (ED045G)								
0902_SW015_221110, 0902_QC112_221111	0902_SW016_221110,	**10-Nov-2022**	**----**	----	----	**11-Nov-2022**	08-Dec-2022	✓
Clear Plastic Bottle - Natural (ED045G)								
0902_MW001_221111, 0902_QC113_221111	0902_SW008_221111,	**11-Nov-2022**	**----**	----	----	**11-Nov-2022**	09-Dec-2022	✓
ED093F: Dissolved Major Cations								
Clear Plastic Bottle - Natural (ED093F)								
0902_SW015_221110, 0902_QC112_221111	0902_SW016_221110,	**10-Nov-2022**	**----**	----	----	**15-Nov-2022**	17-Nov-2022	✓
Clear Plastic Bottle - Natural (ED093F)								
0902_MW001_221111, 0902_QC113_221111	0902_SW008_221111,	**11-Nov-2022**	**----**	----	----	**15-Nov-2022**	18-Nov-2022	✓
EG020T: Total Metals by ICP-MS								
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)								
0902_SW015_221110, 0902_QC112_221111	0902_SW016_221110,	**10-Nov-2022**	**15-Nov-2022**	09-May-2023	✓	**15-Nov-2022**	09-May-2023	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)								
0902_MW001_221111, 0902_QC113_221111	0902_SW008_221111,	**11-Nov-2022**	**15-Nov-2022**	10-May-2023	✓	**15-Nov-2022**	10-May-2023	✓
EK055G: Ammonia as N by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK055G)								
0902_SW015_221110, 0902_QC112_221111	0902_SW016_221110,	**10-Nov-2022**	**----**	----	----	**15-Nov-2022**	08-Dec-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK055G)								
0902_MW001_221111, 0902_QC113_221111	0902_SW008_221111,	**11-Nov-2022**	**----**	----	----	**15-Nov-2022**	09-Dec-2022	✓
EK057G: Nitrite as N by Discrete Analyser								
Clear Plastic Bottle - Natural (EK057G)								
0902_SW015_221110, 0902_QC112_221111	0902_SW016_221110,	**10-Nov-2022**	**----**	----	----	**11-Nov-2022**	12-Nov-2022	✓
Clear Plastic Bottle - Natural (EK057G)								
0902_MW001_221111, 0902_QC113_221111	0902_SW008_221111,	**11-Nov-2022**	**----**	----	----	**11-Nov-2022**	13-Nov-2022	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_SW015_221110, 0902_SW016_221110, 0902_QC112_221111	**10-Nov-2022**	**----**	----	----	**15-Nov-2022**	08-Dec-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_MW001_221111, 0902_SW008_221111, 0902_QC113_221111	**11-Nov-2022**	**----**	----	----	**15-Nov-2022**	09-Dec-2022	✓
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK061G)							
0902_SW015_221110, 0902_SW016_221110, 0902_QC112_221111	**10-Nov-2022**	**15-Nov-2022**	08-Dec-2022	✓	**15-Nov-2022**	08-Dec-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK061G)							
0902_MW001_221111, 0902_SW008_221111, 0902_QC113_221111	**11-Nov-2022**	**15-Nov-2022**	09-Dec-2022	✓	**15-Nov-2022**	09-Dec-2022	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_SW015_221110, 0902_SW016_221110, 0902_QC112_221111	**10-Nov-2022**	**15-Nov-2022**	08-Dec-2022	✓	**15-Nov-2022**	08-Dec-2022	✓
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_MW001_221111, 0902_SW008_221111, 0902_QC113_221111	**11-Nov-2022**	**15-Nov-2022**	09-Dec-2022	✓	**15-Nov-2022**	09-Dec-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW032_221110, 0902_MW033_221110, 0902_MW034_221110, 0902_MW053_221110, 0902_MW054_221110, 0902_MW057_221110, 0902_MW058_221110, 0902_MW072_221110, 0902_MW073_221110, 0902_MW074_221110, 0902_MW076_221110, 0902_MW077_221110, 0902_MW107D_221110, 0902_MW107I_221110, 0902_SW015_221110, 0902_SW016_221110, 0902_QC111_221110, 0902_QC112_221111, 0902_QC304_221110	**10-Nov-2022**	**14-Nov-2022**	09-May-2023	✓	**16-Nov-2022**	09-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW001_221111, 0902_MW002_221111, 0902_MW004_221111, 0902_MW005_221111, 0902_MW016_221111, 0902_MW030_221111, 0902_MW108_221111, 0902_MW111_221111, 0902_MW112_221111, 0902_MW113_221111, 0902_MW114_221111, 0902_SW005_221111, 0902_SW007_221111, 0902_SW008_221111, 0902_SW011_221111, 0902_SW014_221111, 0902_QC113_221111, 0902_QC305_221111	**11-Nov-2022**	**14-Nov-2022**	10-May-2023	✓	**16-Nov-2022**	10-May-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW032_221110, 0902_MW033_221110, 0902_MW034_221110, 0902_MW053_221110, 0902_MW054_221110, 0902_MW057_221110, 0902_MW058_221110, 0902_MW072_221110, 0902_MW073_221110, 0902_MW074_221110, 0902_MW076_221110, 0902_MW077_221110, 0902_MW107D_221110, 0902_MW107I_221110, 0902_SW015_221110, 0902_SW016_221110, 0902_QC111_221110, 0902_QC112_221111, 0902_QC304_221110	**10-Nov-2022**	**14-Nov-2022**	09-May-2023	✓	**16-Nov-2022**	09-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW001_221111, 0902_MW002_221111, 0902_MW004_221111, 0902_MW005_221111, 0902_MW016_221111, 0902_MW030_221111, 0902_MW108_221111, 0902_MW111_221111, 0902_MW112_221111, 0902_MW113_221111, 0902_MW114_221111, 0902_SW005_221111, 0902_SW007_221111, 0902_SW008_221111, 0902_SW011_221111, 0902_SW014_221111, 0902_QC113_221111, 0902_QC305_221111	**11-Nov-2022**	**14-Nov-2022**	10-May-2023	✓	**16-Nov-2022**	10-May-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X)								
0902_MW032_221110,	0902_MW033_221110,	**10-Nov-2022**	**14-Nov-2022**	09-May-2023	✓	**16-Nov-2022**	09-May-2023	✓
0902_MW034_221110,	0902_MW053_221110,							
0902_MW054_221110,	0902_MW057_221110,							
0902_MW058_221110,	0902_MW072_221110,							
0902_MW073_221110,	0902_MW074_221110,							
0902_MW076_221110,	0902_MW077_221110,							
0902_MW107D_221110,	0902_MW107I_221110,							
0902_SW015_221110,	0902_SW016_221110,							
0902_QC111_221110,	0902_QC112_221111,							
0902_QC304_221110								
HDPE (no PTFE) (EP231X)								
0902_MW001_221111,	0902_MW002_221111,	**11-Nov-2022**	**14-Nov-2022**	10-May-2023	✓	**16-Nov-2022**	10-May-2023	✓
0902_MW004_221111,	0902_MW005_221111,							
0902_MW016_221111,	0902_MW030_221111,							
0902_MW108_221111,	0902_MW111_221111,							
0902_MW112_221111,	0902_MW113_221111,							
0902_MW114_221111,	0902_SW005_221111,							
0902_SW007_221111,	0902_SW008_221111,							
0902_SW011_221111,	0902_SW014_221111,							
0902_QC113_221111,	0902_QC305_221111							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW032_221110, 0902_MW033_221110, 0902_MW034_221110, 0902_MW053_221110, 0902_MW054_221110, 0902_MW057_221110, 0902_MW058_221110, 0902_MW072_221110, 0902_MW073_221110, 0902_MW074_221110, 0902_MW076_221110, 0902_MW077_221110, 0902_MW107D_221110, 0902_MW107I_221110, 0902_SW015_221110, 0902_SW016_221110, 0902_QC111_221110, 0902_QC112_221111, 0902_QC304_221110	**10-Nov-2022**	**14-Nov-2022**	09-May-2023	✓	**16-Nov-2022**	09-May-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW001_221111, 0902_MW002_221111, 0902_MW004_221111, 0902_MW005_221111, 0902_MW016_221111, 0902_MW030_221111, 0902_MW108_221111, 0902_MW111_221111, 0902_MW112_221111, 0902_MW113_221111, 0902_MW114_221111, 0902_SW005_221111, 0902_SW007_221111, 0902_SW008_221111, 0902_SW011_221111, 0902_SW014_221111, 0902_QC113_221111, 0902_QC305_221111	**11-Nov-2022**	**14-Nov-2022**	10-May-2023	✓	**16-Nov-2022**	10-May-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X)								
0902_MW032_221110,	0902_MW033_221110,	**10-Nov-2022**	**14-Nov-2022**	09-May-2023	✓	**16-Nov-2022**	09-May-2023	✓
0902_MW034_221110,	0902_MW053_221110,							
0902_MW054_221110,	0902_MW057_221110,							
0902_MW058_221110,	0902_MW072_221110,							
0902_MW073_221110,	0902_MW074_221110,							
0902_MW076_221110,	0902_MW077_221110,							
0902_MW107D_221110,	0902_MW107I_221110,							
0902_SW015_221110,	0902_SW016_221110,							
0902_QC111_221110,	0902_QC112_221111,							
0902_QC304_221110								
HDPE (no PTFE) (EP231X)								
0902_MW001_221111,	0902_MW002_221111,	**11-Nov-2022**	**14-Nov-2022**	10-May-2023	✓	**16-Nov-2022**	10-May-2023	✓
0902_MW004_221111,	0902_MW005_221111,							
0902_MW016_221111,	0902_MW030_221111,							
0902_MW108_221111,	0902_MW111_221111,							
0902_MW112_221111,	0902_MW113_221111,							
0902_MW114_221111,	0902_SW005_221111,							
0902_SW007_221111,	0902_SW008_221111,							
0902_SW011_221111,	0902_SW014_221111,							
0902_QC113_221111,	0902_QC305_221111							

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Alkalinity by Auto Titrator	ED037-P	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	13	15.38	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	37	10.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	13	15.38	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	14	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by Auto Titrator	ED037-P	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	12	8.33	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	37	5.41	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	12	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	3	20	15.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	13	7.69	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	14	21.43	15.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	14	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	14	**7.14**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Alkalinity by Auto Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. PC Titrate) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G.The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO3-. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030F. This method is compliant with NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2240927**	Page	: 1 of 17
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 11-Nov-2022
Order number	: 60612562_5.1	Date Analysis Commenced	: 11-Nov-2022
C-O-C number	: 44837	Issue Date	: 18-Nov-2022
Sampler	: JACK RAWSTHORNE, JESSICA ROY, MAT JENKINS		
Site	: 0902 11/11/22		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 44		
No. of samples analysed	: 44		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4703787)									
ES2240438-020	Anonymous	EA055: Moisture Content	----	0.1	%	1.9	1.8	6.7	0% - 50%
ES2240927-029	0902_SD011_221111	EA055: Moisture Content	----	0.1	%	32.4	34.0	4.7	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4701005)									
ES2240927-026	0902_SD005_221111	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0003	0.0003	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0108	0.0109	0.0	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2240971-082	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0009	0.0009	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0088	0.0096	7.7	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4701005)									
ES2240927-026	0902_SD005_221111	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4701005) - continued									
ES2240927-026	0902_SD005_221111	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2240971-082	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4701005)									
ES2240927-026	0902_SD005_221111	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2240971-082	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4701005)									
ES2240927-026	0902_SD005_221111	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2240971-082	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED037P: Alkalinity by PC Titrator (QC Lot: 4698127)									
ES2240905-001	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	301	304	0.8	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	301	304	0.8	0% - 20%
ES2240906-001	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	39	40	3.6	0% - 20%
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	256	255	0.5	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	295	295	0.0	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4697746)									
ES2240927-039	0902_SW016_221110	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	7	7	0.0	No Limit
ES2240837-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	42	41	3.6	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 4697745)									
ES2240927-039	0902_SW016_221110	ED045G: Chloride	16887-00-6	1	mg/L	181	182	0.0	0% - 20%
ES2240837-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	78	77	1.8	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 4704097)									
ES2240854-009	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	2	3	0.0	No Limit
		ED093F: Magnesium	7439-95-4	1	mg/L	1	2	0.0	No Limit
		ED093F: Sodium	7440-23-5	1	mg/L	15	15	0.0	0% - 50%
		ED093F: Potassium	7440-09-7	1	mg/L	7	7	0.0	No Limit
ES2240961-003	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	<1	<1	0.0	No Limit
		ED093F: Magnesium	7439-95-4	1	mg/L	<1	<1	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
ED093F: Dissolved Major Cations (QC Lot: 4704097) - continued									
ES2240961-003	Anonymous	ED093F: Sodium	7440-23-5	1	mg/L	2	2	0.0	No Limit
		ED093F: Potassium	7440-09-7	1	mg/L	<1	<1	0.0	No Limit
EG020T: Total Metals by ICP-MS (QC Lot: 4703416)									
ES2240927-001	0902_MW001_221111	EG020A-T: Manganese	7439-96-5	0.001	mg/L	0.057	0.059	3.5	0% - 20%
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	0.0	No Limit
ES2240961-005	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	0.0	No Limit
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 4702469)									
ES2240658-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.17	0.17	0.0	0% - 50%
ES2240837-003	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4697744)									
ES2240927-039	0902_SW016_221110	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2240837-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	0.05	0.04	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4702470)									
ES2240658-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	1.59	1.57	1.2	0% - 20%
ES2240837-003	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.47	0.47	0.0	0% - 20%
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 4702462)									
ES2240757-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	<0.1	0.0	No Limit
ES2240927-038	0902_SW015_221110	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	1.4	1.5	0.0	0% - 50%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4702463)									
ES2240757-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.50	0.50	0.0	0% - 20%
ES2240927-038	0902_SW015_221110	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.22	0.22	0.0	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4698993)									
ES2240927-001	0902_MW001_221111	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.10	0.09	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2240927-016	0902_MW074_221110	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	39.2	34.2	13.7	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	6.32	7.48	16.7	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	6.45	6.49	0.6	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	7.99	6.69	17.7	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.73	0.85	15.2	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4698998)									
ES2240927-021	0902_MW108_221111	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.45	0.45	0.0	0% - 20%

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4698998) - continued									
ES2240927-021	0902_MW108_221111	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.03	0.04	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.11	0.10	12.7	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.11	0.11	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2240927-036	0902_SW011_221111	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	5.44	5.71	4.8	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	11.9	12.0	0.5	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.58	0.58	0.0	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.67	0.80	18.5	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.36	0.39	8.3	0% - 50%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4698993)									
ES2240927-001	0902_MW001_221111	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2240927-016	0902_MW074_221110	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	1.44	1.46	1.2	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	1.89	1.88	0.7	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	10.2	10.3	1.1	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	1.02	1.12	8.8	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	4.5	4.2	6.4	0% - 20%
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4698998)									
ES2240927-021	0902_MW108_221111	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.10	0.10	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4698998) - continued									
ES2240927-021	0902_MW108_221111	EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2240927-036	0902_SW011_221111	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.42	0.45	6.8	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.28	0.29	5.1	0% - 50%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	1.16	1.24	6.1	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.20	0.20	0.0	0% - 50%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	0.1	0.2	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4698993)									
ES2240927-001	0902_MW001_221111	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2240927-016	0902_MW074_221110	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4698993) - continued									
ES2240927-016	0902_MW074_221110	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4698998)									
ES2240927-021	0902_MW108_221111	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2240927-036	0902_SW011_221111	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4698993)									
ES2240927-001	0902_MW001_221111	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4698993) - continued									
ES2240927-016	0902_MW074_221110	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4698998)									
ES2240927-021	0902_MW108_221111	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2240927-036	0902_SW011_221111	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	0.10	0.09	16.4	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4698993)									
ES2240927-001	0902_MW001_221111	EP231X: Sum of PFAS	----	0.01	µg/L	0.10	0.11	9.5	0% - 50%
ES2240927-016	0902_MW074_221110	EP231X: Sum of PFAS	----	0.01	µg/L	79.7	74.7	6.6	0% - 20%
EP231P: PFAS Sums (QC Lot: 4698998)									
ES2240927-021	0902_MW108_221111	EP231X: Sum of PFAS	----	0.01	µg/L	0.80	0.80	0.0	0% - 20%
ES2240927-036	0902_SW011_221111	EP231X: Sum of PFAS	----	0.01	µg/L	21.2	22.0	3.4	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4701005)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	91.2	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	109	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	113	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.2	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	101	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.4	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4701005)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	109	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	113	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	117	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	111	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	117	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4701005)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	110	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	108	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	112	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4701005)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	94.4	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	85.2	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	85.6	65.0	137

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4701005) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	102	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
ED037P: Alkalinity by PC Titrator (QCLot: 4698127)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	101	81.0	111
				----	50 mg/L	107	80.0	120
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4697746)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	92.2	82.0	122
				<1	500 mg/L	96.5	82.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 4697745)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	96.4	80.9	127
				<1	1000 mg/L	97.2	80.9	127
ED093F: Dissolved Major Cations (QCLot: 4704097)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	100	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	101	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	105	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	97.5	85.0	113
EG020T: Total Metals by ICP-MS (QCLot: 4703416)								
EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	93.1	82.0	120
EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	91.0	85.0	113
EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	96.1	85.0	117
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4702469)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	108	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4697744)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	96.8	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4702470)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	103	91.0	113
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4702462)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	10 mg/L	90.0	69.0	101
				<0.1	1 mg/L	92.9	70.0	118
				<0.1	5 mg/L	97.8	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4702463)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	98.0	71.3	126
				<0.01	0.442 mg/L	110	71.3	126
				<0.01	1 mg/L	114	71.3	126
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4698993)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4698993) - continued								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	81.0	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	85.4	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	84.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	83.6	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	106	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	96.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4698998)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	92.6	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	95.0	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	107	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	89.4	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	92.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	79.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4698993)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	97.0	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	107	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	101	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	96.0	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	97.4	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	123	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	114	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	106	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4698998)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	99.1	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	110	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	113	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	113	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	96.8	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	96.2	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	112	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	124	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	109	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4698993)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4698993) - continued								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	93.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	96.7	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	96.8	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	110	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	105	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	101	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4698998)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	101	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	103	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	106	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	117	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	109	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	111	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4698993)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	113	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	94.8	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	90.4	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	107	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4698998)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	109	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	76.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	110	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	86.4	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Matrix Spike (MS) Report

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4701005)							
ES2240927-026	0902_SD005_221111	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	106	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	122	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	119	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	102	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	# Not Determined	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	123	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4701005)							
ES2240927-026	0902_SD005_221111	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	111	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	118	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	112	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	115	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	121	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	102	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	111	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	118	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	117	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	109	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	116	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4701005)							
ES2240927-026	0902_SD005_221111	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	113	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	105	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	122	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	114	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	120	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	116	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	108	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4701005)							
ES2240927-026	0902_SD005_221111	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	89.2	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	86.0	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	105	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	120	69.2	143

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4697746)							
ES2240837-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	10 mg/L	# Not Determined	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4697745)							
ES2240837-001	Anonymous	ED045G: Chloride	16887-00-6	50 mg/L	112	70.0	130
EG020T: Total Metals by ICP-MS (QCLot: 4703416)							
ES2240927-035	0902_SW008_221111	EG020A-T: Manganese	7439-96-5	1 mg/L	94.3	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4702469)							
ES2240658-001	Anonymous	EK055G: Ammonia as N	7664-41-7	1 mg/L	120	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4697744)							
ES2240837-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	103	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4702470)							
ES2240658-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	80.4	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4702462)							
ES2240757-006	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	95.6	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4702463)							
ES2240757-006	Anonymous	EK067G: Total Phosphorus as P	----	1 mg/L	113	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4698993)							
ES2240927-002	0902_MW002_221111	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	89.0	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	86.6	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	89.6	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	82.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	103	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	99.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4698998)							
ES2240927-022	0902_MW111_221111	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	89.8	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	84.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	86.8	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	108	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	102	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	85.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4698993)							
ES2240927-002	0902_MW002_221111	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	102	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	108	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	108	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	109	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	110	71.0	133

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4698993) - continued							
ES2240927-002	0902_MW002_221111	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	97.0	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	107	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	109	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	118	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	111	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	112	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4698998)							
ES2240927-022	0902_MW111_221111	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	97.9	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	111	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	101	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	100	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	102	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	91.6	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	93.6	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	107	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	128	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	101	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	98.1	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4698993)							
ES2240927-002	0902_MW002_221111	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	106	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	120	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	109	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	113	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	110	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	98.4	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	109	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4698998)							
ES2240927-022	0902_MW111_221111	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	81.2	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	84.8	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	89.4	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	101	66.0	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4698998) - continued							
ES2240927-022	0902_MW111_221111	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	111	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	102	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	90.0	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4698993)							
ES2240927-002	0902_MW002_221111	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	111	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	89.2	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	80.8	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	124	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4698998)							
ES2240927-022	0902_MW111_221111	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	102	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	74.4	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	115	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	110	71.4	144

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2240927**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MAT JENKINS	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: mat.jenkins@aecom.com	E-mail	: Sepan.Mahamad@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 4
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 44837	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0902 11/11/22		
Sampler	: JACK RAWSTHORNE, JESSICA ROY, MAT JENKINS		

Dates

Date Samples Received	: 11-Nov-2022 16:00	Issue Date	: 11-Nov-2022
Client Requested Due Date	: 18-Nov-2022	Scheduled Reporting Date	: **18-Nov-2022**

Delivery Details

Mode of Delivery	: Client Drop Off	Security Seal	: Intact.
No. of coolers/boxes	: 2	Temperature	: -0.8'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 44 / 44

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2240927-026	11-Nov-2022 10:40	0902_SD005_221111	✓	✓
ES2240927-027	11-Nov-2022 11:45	0902_SD007_221111	✓	✓
ES2240927-028	11-Nov-2022 12:45	0902_SD008_221111	✓	✓
ES2240927-029	11-Nov-2022 13:32	0902_SD011_221111	✓	✓
ES2240927-030	11-Nov-2022 09:00	0902_SD014_221111	✓	✓
ES2240927-031	10-Nov-2022 14:35	0902_SD015_221110	✓	✓
ES2240927-032	10-Nov-2022 13:45	0902_SD016_221110	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
ES2240927-001	11-Nov-2022 12:15	0902_MW001_221111	✓	✓	✓	✓
ES2240927-002	11-Nov-2022 11:20	0902_MW002_221111		✓		
ES2240927-003	11-Nov-2022 09:45	0902_MW004_221111		✓		
ES2240927-004	11-Nov-2022 09:10	0902_MW005_221111		✓		
ES2240927-005	11-Nov-2022 08:25	0902_MW016_221111		✓		
ES2240927-006	11-Nov-2022 07:12	0902_MW030_221111		✓		
ES2240927-007	10-Nov-2022 10:30	0902_MW032_221110		✓		
ES2240927-008	10-Nov-2022 10:45	0902_MW033_221110		✓		
ES2240927-009	10-Nov-2022 10:20	0902_MW034_221110		✓		
ES2240927-010	10-Nov-2022 17:25	0902_MW053_221110		✓		
ES2240927-011	10-Nov-2022 16:45	0902_MW054_221110		✓		
ES2240927-012	10-Nov-2022 17:15	0902_MW057_221110		✓		
ES2240927-013	10-Nov-2022 16:30	0902_MW058_221110		✓		
ES2240927-014	10-Nov-2022 10:10	0902_MW072_221110		✓		
ES2240927-015	10-Nov-2022 09:30	0902_MW073_221110		✓		
ES2240927-016	10-Nov-2022 09:40	0902_MW074_221110		✓		

			WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
ES2240927-017	10-Nov-2022 15:18	0902_MW076_221110		✓		
ES2240927-018	10-Nov-2022 15:50	0902_MW077_221110		✓		
ES2240927-019	10-Nov-2022 12:00	0902_MW107D_221110		✓		
ES2240927-020	10-Nov-2022 12:10	0902_MW107I_221110		✓		
ES2240927-021	11-Nov-2022 07:19	0902_MW108_221111		✓		
ES2240927-022	11-Nov-2022 09:15	0902_MW111_221111		✓		
ES2240927-023	11-Nov-2022 10:00	0902_MW112_221111		✓		
ES2240927-024	11-Nov-2022 11:35	0902_MW113_221111		✓		
ES2240927-025	11-Nov-2022 12:25	0902_MW114_221111		✓		
ES2240927-033	11-Nov-2022 10:36	0902_SW005_221111		✓		
ES2240927-034	11-Nov-2022 11:45	0902_SW007_221111		✓		
ES2240927-035	11-Nov-2022 12:40	0902_SW008_221111	✓	✓	✓	✓
ES2240927-036	11-Nov-2022 13:31	0902_SW011_221111		✓		
ES2240927-037	11-Nov-2022 08:49	0902_SW014_221111		✓		
ES2240927-038	10-Nov-2022 14:35	0902_SW015_221110	✓	✓	✓	✓
ES2240927-039	10-Nov-2022 01:45	0902_SW016_221110	✓	✓	✓	✓
ES2240927-040	10-Nov-2022 09:45	0902_QC111_221110		✓		
ES2240927-041	10-Nov-2022 13:45	0902_QC112_221111	✓	✓	✓	✓
ES2240927-042	11-Nov-2022 12:50	0902_QC113_221111	✓	✓	✓	✓
ES2240927-043	10-Nov-2022 17:45	0902_QC304_221110		✓		
ES2240927-044	11-Nov-2022 14:47	0902_QC305_221111		✓		

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

ANDREW SPOOR

- *AU Certificate of Analysis - NATA (COA)	Email	Andrew.Spoor@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Andrew.Spoor@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Andrew.Spoor@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Andrew.Spoor@aecom.com
- Chain of Custody (CoC) (COC)	Email	Andrew.Spoor@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Andrew.Spoor@aecom.com
- EDI Format - XTab (XTAB)	Email	Andrew.Spoor@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Andrew.Spoor@aecom.com

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	catherine.hansen@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Geoff.Tredinnick@aecom.com

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- EDI Format - XTab (XTAB)	Email	mat.jenkins@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	mat.jenkins@aecom.com

NICOLA TOMLIN

- *AU Certificate of Analysis - NATA (COA)	Email	nicola.tomlin@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	nicola.tomlin@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	nicola.tomlin@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	nicola.tomlin@aecom.com
- Chain of Custody (CoC) (COC)	Email	nicola.tomlin@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	nicola.tomlin@aecom.com
- EDI Format - XTab (XTAB)	Email	nicola.tomlin@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	nicola.tomlin@aecom.com

CHAIN OF CUSTODY

ALS COC#: 44837 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 11/11/22 1600	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902 11/11/22

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW001_221111		11/11/2022 12:15 PM	Water	ALS: 8 Non ALS: 0	No	X				Extra volume taken
002	0902_MW002_221111		11/11/2022 11:20 AM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
003	0902_MW004_221111		11/11/2022 09:45 AM	Water	ALS: 5 Non ALS: 0	No			X		
004	0902_MW005_221111		11/11/2022 09:10 AM	Water	ALS: 3 Non ALS: 0	No			X		
005	0902_MW016_221111		11/11/2022 08:25 AM	Water	ALS: 3 Non ALS: 0	No			X		
006	0902_MW030_221111		11/11/2022 07:12 AM	Water	ALS: 3 Non ALS: 0	No			X		
007	0902_MW032_221110		10/11/2022 10:30 AM	Water	ALS: 3 Non ALS: 0	No			X		
008	0902_MW033_221110		10/11/2022 10:45 AM	Water	ALS: 3 Non ALS: 0	No			X		
009	0902_MW034_221110		10/11/2022 10:20 AM	Water	ALS: 3 Non ALS: 0	No			X		

HT

Environmental Division Sydney

Work Order Reference

ES2240927

Telephone : +61-2-8784 6555

CHAIN OF CUSTODY

(ALS) COC#: 44837 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 11/11/22 1600	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902 11/11/22

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_MW053_221110		10/11/2022 05:25 PM	Water	ALS: 3 Non ALS: 0	No			X		
011	0902_MW054_221110		10/11/2022 04:45 PM	Water	ALS: 3 Non ALS: 0	No			X		
012	0902_MW057_221110		10/11/2022 05:15 PM	Water	ALS: 3 Non ALS: 0	No			X		
013	0902_MW058_221110		10/11/2022 04:30 PM	Water	ALS: 3 Non ALS: 0	No			X		
014	0902_MW072_221110		10/11/2022 10:10 AM	Water	ALS: 3 Non ALS: 0	No			X		
015	0902_MW073_221110		10/11/2022 09:30 AM	Water	ALS: 3 Non ALS: 0	No			X		
016	0902_MW074_221110		10/11/2022 09:40 AM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
017	0902_MW076_221110		10/11/2022 03:18 PM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
018	0902_MW077_221110		10/11/2022 03:50 PM	Water	ALS: 3 Non ALS: 0	No			X		

CHAIN OF CUSTODY

ALS COC#: 44837 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 11/11/22 1600	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902 11/11/22

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

PROJECT MANAGER: Mat Jenkins
PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0902_MW107D_221110		10/11/2022 12:00 PM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
020	0902_MW107I_221110		10/11/2022 12:10 PM	Water	ALS: 3 Non ALS: 0	No			X		
021	0902_MW108_221111		11/11/2022 07:19 AM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
022	0902_MW111_221111		11/11/2022 09:15 AM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
023	0902_MW112_221111		11/11/2022 10:00 AM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
024	0902_MW113_221111		11/11/2022 11:35 AM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
025	0902_MW114_221111		11/11/2022 12:25 PM	Water	ALS: 3 Non ALS: 0	No			X		
026	0902_SD005_221111		11/11/2022 10:40 AM	Soil	ALS: 1 Non ALS: 0	No		X			
027	0902_SD007_221111		11/11/2022 11:45 AM	Soil	ALS: 1 Non ALS: 0	No		X			

CHAIN OF CUSTODY

(ALS) COC#: 44837 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 4/11/22 1600	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902 11/11/22

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

PROJECT MANAGER: Mat Jenkins
PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
028	0902_SD008_221111		11/11/2022 12:45 PM	Water	ALS: 1 Non ALS: 0	No		X			
029	0902_SD011_221111		11/11/2022 01:32 PM	Soil	ALS: 1 Non ALS: 0	No		X			
030	0902_SD014_221111		11/11/2022 09:00 AM	Soil	ALS: 1 Non ALS: 0	No		X			
031	0902_SD015_221110		10/11/2022 02:35 PM	Soil	ALS: 1 Non ALS: 0	No		X			
032	0902_SD016_221110		10/11/2022 01:45 PM	Soil	ALS: 1 Non ALS: 0	No		X			
033	0902_SW005_221111		11/11/2022 10:36 AM	Water	ALS: 3 Non ALS: 0	No			X		
034	0902_SW007_221111		11/11/2022 11:45 AM	Water	ALS: 3 Non ALS: 0	No			X		
035	0902_SW008_221111		11/11/2022 12:40 PM	Water	ALS: 6 Non ALS: 0	No	X				
036	0902_SW011_221111		11/11/2022 01:31 PM	Water	ALS: 5 Non ALS: 0	No			X		

CHAIN OF CUSTODY

(ALS) COC#: 44837 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 11/11/22 1600	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902 11/11/22

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU002 7

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SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
037	0902_SW014_221111		11/11/2022 08:49 AM	Water	ALS: 3 Non ALS: 0	No			X		
038	0902_SW015_221110		10/11/2022 02:35 PM	Water	ALS: 6 Non ALS: 0	No	X				
039	0902_SW016_221110		10/11/2022 01:45 AM	Water	ALS: 6 Non ALS: 0	No	X				
040	0902_QC111_221110		10/11/2022 09:45 AM	Water	ALS: 3 Non ALS: 0	No			X		
041	0902_QC112_221111		10/11/2022 01:45 PM	Water	ALS: 6 Non ALS: 0	No	X				
042	0902_QC113_221111		11/11/2022 12:50 PM	Water	ALS: 6 Non ALS: 0	No	X				
043	0902_QC304_221110		10/11/2022 05:45 PM	Water	ALS: 3 Non ALS: 0	No			X		
044	0902_QC305_221111		11/11/2022 02:47 PM	Water	ALS: 3 Non ALS: 0	No			X		

CHAIN OF CUSTODY

COC#: 44837 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 11/11/22 1600	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902 11/11/22

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Jack Rawsthorne QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW001_221111	Clear Plastic Bottle - Natural	500 mL	00070121127856	Green	No	
001	0902_MW001_221111	HDPE (no PTFE)	20 mL	00350821010956	Grey	No	
001	0902_MW001_221111	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00121020056358	Red	Yes	
001	0902_MW001_221111	HDPE (no PTFE)	20 mL	00350821010997	Grey	No	
001	0902_MW001_221111	HDPE (no PTFE)	20 mL	00350821010988	Grey	No	
001	0902_MW001_221111	HDPE (no PTFE)	20 mL	00350821010809	Grey	No	
001	0902_MW001_221111	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522037927	Purple	No	
001	0902_MW001_221111	HDPE (no PTFE)	20 mL	00350821010958	Grey	No	
002	0902_MW002_221111	HDPE (no PTFE)	20 mL	00350821010732	Grey	No	
002	0902_MW002_221111	HDPE (no PTFE)	20 mL	00350821010932	Grey	No	
002	0902_MW002_221111	HDPE (no PTFE)	20 mL	00350821010777	Grey	No	
002	0902_MW002_221111	HDPE (no PTFE)	20 mL	00350821010803	Grey	No	
002	0902_MW002_221111	HDPE (no PTFE)	20 mL	00350821010965	Grey	No	
003	0902_MW004_221111	HDPE (no PTFE)	20 mL	00350821010933	Grey	No	
003	0902_MW004_221111	HDPE (no PTFE)	20 mL	00350821010923	Grey	No	
003	0902_MW004_221111	HDPE (no PTFE)	20 mL	00350821010996	Grey	No	
003	0902_MW004_221111	HDPE (no PTFE)	20 mL	00350821010952	Grey	No	
003	0902_MW004_221111	HDPE (no PTFE)	20 mL	00350821010856	Grey	No	
004	0902_MW005_221111	HDPE (no PTFE)	20 mL	00350821010884	Grey	No	
004	0902_MW005_221111	HDPE (no PTFE)	20 mL	00350821010751	Grey	No	
004	0902_MW005_221111	HDPE (no PTFE)	20 mL	00350821010811	Grey	No	
005	0902_MW016_221111	HDPE (no PTFE)	20 mL	00350821010878	Grey	No	
005	0902_MW016_221111	HDPE (no PTFE)	20 mL	00350821010897	Grey	No	
005	0902_MW016_221111	HDPE (no PTFE)	20 mL	00350821010970	Grey	No	
006	0902_MW030_221111	HDPE (no PTFE)	20 mL	00350821010750	Grey	No	
006	0902_MW030_221111	HDPE (no PTFE)	20 mL	00350821010766	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 44837 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 11/11/22 1600	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902 11/11/22

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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006	0902_MW030_221111	HDPE (no PTFE)	20 mL	00350821010964	Grey	No	
007	0902_MW032_221110	HDPE (no PTFE)	20 mL	00350821029035	Grey	No	
007	0902_MW032_221110	HDPE (no PTFE)	20 mL	00350821029105	Grey	No	
007	0902_MW032_221110	HDPE (no PTFE)	20 mL	00350522040069	Grey	No	
008	0902_MW033_221110	HDPE (no PTFE)	20 mL	00350621006794	Grey	No	
008	0902_MW033_221110	HDPE (no PTFE)	20 mL	00350621006573	Grey	No	
008	0902_MW033_221110	HDPE (no PTFE)	20 mL	00350621006627	Grey	No	
009	0902_MW034_221110	HDPE (no PTFE)	20 mL	00350821029026	Grey	No	
009	0902_MW034_221110	HDPE (no PTFE)	20 mL	00350821029108	Grey	No	
009	0902_MW034_221110	HDPE (no PTFE)	20 mL	00350821029190	Grey	No	
010	0902_MW053_221110	HDPE (no PTFE)	20 mL	00350621006630	Grey	No	
010	0902_MW053_221110	HDPE (no PTFE)	20 mL	00350621006741	Grey	No	
010	0902_MW053_221110	HDPE (no PTFE)	20 mL	00350621006571	Grey	No	
011	0902_MW054_221110	HDPE (no PTFE)	20 mL	00350621006631	Grey	No	
011	0902_MW054_221110	HDPE (no PTFE)	20 mL	00350621006722	Grey	No	
011	0902_MW054_221110	HDPE (no PTFE)	20 mL	00350621006538	Grey	No	
012	0902_MW057_221110	HDPE (no PTFE)	20 mL	00350621006813	Grey	No	
012	0902_MW057_221110	HDPE (no PTFE)	20 mL	00350621006717	Grey	No	
012	0902_MW057_221110	HDPE (no PTFE)	20 mL	00350621006655	Grey	No	
013	0902_MW058_221110	HDPE (no PTFE)	20 mL	00350621006677	Grey	No	
013	0902_MW058_221110	HDPE (no PTFE)	20 mL	00350621006639	Grey	No	
013	0902_MW058_221110	HDPE (no PTFE)	20 mL	00350621006532	Grey	No	
014	0902_MW072_221110	HDPE (no PTFE)	20 mL	00350821029229	Grey	No	
014	0902_MW072_221110	HDPE (no PTFE)	20 mL	00350821029009	Grey	No	
014	0902_MW072_221110	HDPE (no PTFE)	20 mL	00350821029062	Grey	No	
015	0902_MW073_221110	HDPE (no PTFE)	20 mL	00350621006704	Grey	No	
015	0902_MW073_221110	HDPE (no PTFE)	20 mL	00350621006758	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 44837 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 11/11/22 16:00	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902 11/11/22

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: C

Other comments:

PROJECT MANAGER: Mat Jenkins CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

PRIMARY SAMPLER: Jack Rawsthorne QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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015	0902_MW073_221110	HDPE (no PTFE)	20 mL	00350621006649	Grey	No	
016	0902_MW074_221110	HDPE (no PTFE)	20 mL	00350621006389	Grey	No	
016	0902_MW074_221110	HDPE (no PTFE)	20 mL	00350621023400	Grey	No	
016	0902_MW074_221110	HDPE (no PTFE)	20 mL	00350621006298	Grey	No	
016	0902_MW074_221110	HDPE (no PTFE)	20 mL	00350621023449	Grey	No	
016	0902_MW074_221110	HDPE (no PTFE)	20 mL	00350621006286	Grey	No	
017	0902_MW076_221110	HDPE (no PTFE)	20 mL	00350621006771	Grey	No	
017	0902_MW076_221110	HDPE (no PTFE)	20 mL	00350621006774	Grey	No	
017	0902_MW076_221110	HDPE (no PTFE)	20 mL	00350621006641	Grey	No	
017	0902_MW076_221110	HDPE (no PTFE)	20 mL	00350621006795	Grey	No	
017	0902_MW076_221110	HDPE (no PTFE)	20 mL	00350621006570	Grey	No	
018	0902_MW077_221110	HDPE (no PTFE)	20 mL	00350621006796	Grey	No	
018	0902_MW077_221110	HDPE (no PTFE)	20 mL	00350621006611	Grey	No	
018	0902_MW077_221110	HDPE (no PTFE)	20 mL	00350621006702	Grey	No	
019	0902_MW107D_221110	HDPE (no PTFE)	20 mL	00350621006817	Grey	No	
019	0902_MW107D_221110	HDPE (no PTFE)	20 mL	00350621006768	Grey	No	
019	0902_MW107D_221110	HDPE (no PTFE)	20 mL	00350621006562	Grey	No	
019	0902_MW107D_221110	HDPE (no PTFE)	20 mL	00350621006710	Grey	No	
019	0902_MW107D_221110	HDPE (no PTFE)	20 mL	00350621006592	Grey	No	
020	0902_MW107I_221110	HDPE (no PTFE)	20 mL	00350621006708	Grey	No	
020	0902_MW107I_221110	HDPE (no PTFE)	20 mL	00350621006674	Grey	No	
020	0902_MW107I_221110	HDPE (no PTFE)	20 mL	00350621006764	Grey	No	
021	0902_MW108_221111	HDPE (no PTFE)	20 mL	00350821010836	Grey	No	
021	0902_MW108_221111	HDPE (no PTFE)	20 mL	00350821010701	Grey	No	
021	0902_MW108_221111	HDPE (no PTFE)	20 mL	00350821010850	Grey	No	
021	0902_MW108_221111	HDPE (no PTFE)	20 mL	00350821010904	Grey	No	
021	0902_MW108_221111	HDPE (no PTFE)	20 mL	00350821010961	Grey	No	

CHAIN OF CUSTODY

(ALS) *COC#:* 44837 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902 11/11/22

ORDER NO: 60612562_5.1

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 11/11/22 1600	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

022	0902_MW111_221111	HDPE (no PTFE)	20 mL	00350821010827	Grey	No	
022	0902_MW111_221111	HDPE (no PTFE)	20 mL	00350821010908	Grey	No	
022	0902_MW111_221111	HDPE (no PTFE)	20 mL	00350821010876	Grey	No	
022	0902_MW111_221111	HDPE (no PTFE)	20 mL	00350821010896	Grey	No	
022	0902_MW111_221111	HDPE (no PTFE)	20 mL	00350821010918	Grey	No	
023	0902_MW112_221111	HDPE (no PTFE)	20 mL	00350821010734	Grey	No	
023	0902_MW112_221111	HDPE (no PTFE)	20 mL	00350821011003	Grey	No	
023	0902_MW112_221111	HDPE (no PTFE)	20 mL	00350821010788	Grey	No	
023	0902_MW112_221111	HDPE (no PTFE)	20 mL	00350821010725	Grey	No	
023	0902_MW112_221111	HDPE (no PTFE)	20 mL	00350821010941	Grey	No	
024	0902_MW113_221111	HDPE (no PTFE)	20 mL	00350821010783	Grey	No	
024	0902_MW113_221111	HDPE (no PTFE)	20 mL	00350821011001	Grey	No	
024	0902_MW113_221111	HDPE (no PTFE)	20 mL	00350821010835	Grey	No	
024	0902_MW113_221111	HDPE (no PTFE)	20 mL	00350821010829	Grey	No	
024	0902_MW113_221111	HDPE (no PTFE)	20 mL	00350821010995	Grey	No	
025	0902_MW114_221111	HDPE (no PTFE)	20 mL	00350821010797	Grey	No	
025	0902_MW114_221111	HDPE (no PTFE)	20 mL	00350821010853	Grey	No	
025	0902_MW114_221111	HDPE (no PTFE)	20 mL	00350821010768	Grey	No	
026	0902_SD005_221111	HDPE Soil Jar	200 mL	00620322023544	Grey	No	
027	0902_SD007_221111	HDPE Soil Jar	200 mL	00620322023568	Grey	No	
028	0902_SD008_221111	HDPE Soil Jar	200 mL	00620322023636	Grey	No	
029	0902_SD011_221111	HDPE Soil Jar	200 mL	00620322023640	Grey	No	
030	0902_SD014_221111	HDPE Soil Jar	200 mL	00620322023523	Grey	No	
031	0902_SD015_221110	HDPE Soil Jar	200 mL	00620322104530	Grey	No	
032	0902_SD016_221110	HDPE Soil Jar	200 mL	00620322104434	Grey	No	
033	0902_SW005_221111	HDPE (no PTFE)	20 mL	00350821010892	Grey	No	
033	0902_SW005_221111	HDPE (no PTFE)	20 mL	00350821010761	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 44837 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 11/11/22 1500	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902 11/11/22

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU002 7

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

033	0902_SW005_221111	HDPE (no PTFE)	20 mL	00350821010723	Grey	No	
034	0902_SW007_221111	HDPE (no PTFE)	20 mL	00350821010930	Grey	No	
034	0902_SW007_221111	HDPE (no PTFE)	20 mL	00350821010873	Grey	No	
034	0902_SW007_221111	HDPE (no PTFE)	20 mL	00350821010940	Grey	No	
035	0902_SW008_221111	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522037910	Purple	No	
035	0902_SW008_221111	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522038093	Red	Yes	
035	0902_SW008_221111	HDPE (no PTFE)	20 mL	00350821010815	Grey	No	
035	0902_SW008_221111	HDPE (no PTFE)	20 mL	00350821010863	Grey	No	
035	0902_SW008_221111	HDPE (no PTFE)	20 mL	00350821011000	Grey	No	
035	0902_SW008_221111	Clear Plastic Bottle - Natural	500 mL	00070121127834	Green	No	
036	0902_SW011_221111	HDPE (no PTFE)	20 mL	00350821010846	Grey	No	
036	0902_SW011_221111	HDPE (no PTFE)	20 mL	00350821010989	Grey	No	
036	0902_SW011_221111	HDPE (no PTFE)	20 mL	00350821010928	Grey	No	
036	0902_SW011_221111	HDPE (no PTFE)	20 mL	00350821010929	Grey	No	
036	0902_SW011_221111	HDPE (no PTFE)	20 mL	00350821010946	Grey	No	
037	0902_SW014_221111	HDPE (no PTFE)	20 mL	00350821010775	Grey	No	
037	0902_SW014_221111	HDPE (no PTFE)	20 mL	00350821010773	Grey	No	
037	0902_SW014_221111	HDPE (no PTFE)	20 mL	00350821010826	Grey	No	
038	0902_SW015_221110	Clear Plastic Bottle - Natural	500 mL	00070121127839	Green	No	
038	0902_SW015_221110	HDPE (no PTFE)	20 mL	00350621006788	Grey	No	
038	0902_SW015_221110	HDPE (no PTFE)	20 mL	00350621006773	Grey	No	
038	0902_SW015_221110	HDPE (no PTFE)	20 mL	00350621006633	Grey	No	
038	0902_SW015_221110	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522038304	Red	Yes	
038	0902_SW015_221110	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522018117	Purple	No	
039	0902_SW016_221110	Clear Plastic Bottle - Natural	500 mL	00070121127838	Green	No	
039	0902_SW016_221110	HDPE (no PTFE)	20 mL	00350621006601	Grey	No	
039	0902_SW016_221110	HDPE (no PTFE)	20 mL	00350621006576	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 44837 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 1/11/22 1600	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902 11/11/22

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Mat Jenkins

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: 0412 65 47 87 SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

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039	0902_SW016_221110	HDPE (no PTFE)	20 mL	00350621006769	Grey	No	
039	0902_SW016_221110	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522037735	Red	Yes	
039	0902_SW016_221110	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522018607	Purple	No	
040	0902_QC111_221110	HDPE (no PTFE)	20 mL	00350821029070	Grey	No	
040	0902_QC111_221110	HDPE (no PTFE)	20 mL	00350821029054	Grey	No	
040	0902_QC111_221110	HDPE (no PTFE)	20 mL	00350821029096	Grey	No	
041	0902_QC112_221111	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522037903	Purple	No	
041	0902_QC112_221111	Clear Plastic Bottle - Natural	500 mL	00070121127841	Green	No	
041	0902_QC112_221111	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522037999	Red	Yes	
041	0902_QC112_221111	HDPE (no PTFE)	20 mL	00350621006784	Grey	No	
041	0902_QC112_221111	HDPE (no PTFE)	20 mL	00350621006667	Grey	No	
041	0902_QC112_221111	HDPE (no PTFE)	20 mL	00350621006654	Grey	No	
042	0902_QC113_221111	Clear Plastic Bottle - Natural	500 mL	00070121127837	Green	No	
042	0902_QC113_221111	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00120522037595	Red	Yes	
042	0902_QC113_221111	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522018879	Purple	No	
042	0902_QC113_221111	HDPE (no PTFE)	20 mL	00350821010823	Grey	No	
042	0902_QC113_221111	HDPE (no PTFE)	20 mL	00350821010905	Grey	No	
042	0902_QC113_221111	HDPE (no PTFE)	20 mL	00350821010733	Grey	No	
043	0902_QC304_221110	HDPE (no PTFE)	20 mL	00350621006792	Grey	No	
043	0902_QC304_221110	HDPE (no PTFE)	20 mL	00350621006765	Grey	No	
043	0902_QC304_221110	HDPE (no PTFE)	20 mL	00350621006652	Grey	No	
044	0902_QC305_221111	HDPE (no PTFE)	20 mL	00350821010896	Grey	No	
044	0902_QC305_221111	HDPE (no PTFE)	20 mL	00350821010753	Grey	No	
044	0902_QC305_221111	HDPE (no PTFE)	20 mL	00350821010840	Grey	No	

Total Bottle Count: ALS: 158, Non ALS: 0

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2241892**	Page	: 1 of 13
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 18-Nov-2022 15:36
Order number	: 60612562_5.1	Date Analysis Commenced	: 19-Nov-2022
C-O-C number	: 45051	Issue Date	: 25-Nov-2022 16:59
Sampler	: JESSICA ROY		
Site	: 0902_18/11/22		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 10		
No. of samples analysed	: 10		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO2 and Fluoride to the Anions.
- EG020: Bromine quantification may be unreliable due to its low solubility in acid, leading to variable volatility during measurement by ICPMS.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	Sample ID	0902_MW012_221118	0902_MW013_221118	0902_MW014_221118	0902_MW015_221118	0902_MW017_221118
				Sampling date / time	18-Nov-2022 09:30	18-Nov-2022 11:15	18-Nov-2022 12:10	18-Nov-2022 12:32	18-Nov-2022 11:58
					ES2241892-001	ES2241892-002	ES2241892-003	ES2241892-004	ES2241892-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.26**	**0.31**	**0.29**	**0.42**	**0.28**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.28**	**0.32**	**0.29**	**0.50**	**0.33**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**1.33**	**1.78**	**1.27**	**3.40**	**2.17**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.13**	**0.02**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.19**	**0.08**	**0.10**	**3.63**	**0.62**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	**0.1**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.04**	**0.05**	**0.05**	**0.09**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.18**	**0.28**	**0.29**	**0.50**	**0.03**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.02**	**0.05**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.02**	**0.02**	**0.01**	**0.12**	**0.01**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW012_221118	0902_MW013_221118	0902_MW014_221118	0902_MW015_221118	0902_MW017_221118
				Sampling date / time	18-Nov-2022 09:30	18-Nov-2022 11:15	18-Nov-2022 12:10	18-Nov-2022 12:32	18-Nov-2022 11:58
Compound	CAS Number	LOR	Unit		ES2241892-001	ES2241892-002	ES2241892-003	ES2241892-004	ES2241892-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**2.30**	**2.84**	**2.32**	**8.94**	**3.46**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.52**	**1.86**	**1.37**	**7.03**	**2.79**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**2.02**	**2.52**	**2.03**	**8.31**	**3.11**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**104**	**104**	**96.2**	**105**	**101**
13C8-PFOA	----	0.02	%		**99.1**	**101**	**98.4**	**103**	**102**

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC306_221118	----	----	----	----
				Sampling date / time	18-Nov-2022 13:50	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2241892-010	--------	--------	--------	--------
					Result	----	----	----	----
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	----	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	----	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		<1	----	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L		<1	----	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		2	----	----	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		<1	----	----	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		<1	----	----	----	----
Magnesium	7439-95-4	1	mg/L		<1	----	----	----	----
Sodium	7440-23-5	1	mg/L		<1	----	----	----	----
Potassium	7440-09-7	1	mg/L		<1	----	----	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		<0.01	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		<0.001	----	----	----	----
Iron	7439-89-6	0.05	mg/L		<0.05	----	----	----	----
Bromine	7726-95-6	0.1	mg/L		<0.1	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		<0.01	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		<0.01	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		<0.01	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		<0.1	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		<0.1	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		<0.01	----	----	----	----
EN055: Ionic Balance									

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC306_221118	----	----	----	----
				Sampling date / time	18-Nov-2022 13:50	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2241892-010	--------	--------	--------	--------
					Result	----	----	----	----
EN055: Ionic Balance - Continued									
ø **Total Anions**	----	0.01	meq/L		**0.04**	----	----	----	----
ø **Total Cations**	----	0.01	meq/L		<0.01	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC306_221118	----	----	----	----
				Sampling date / time	18-Nov-2022 13:50	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2241892-010	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**98.7**	----	----	----	----
13C8-PFOA	----	0.02	%		**101**	----	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD009_221118	0902_SD013_221118	----	----	----
				Sampling date / time	18-Nov-2022 09:00	18-Nov-2022 11:30	----	----	----
Compound	CAS Number	LOR	Unit		ES2241892-006	ES2241892-007	--------	--------	--------
					Result	Result	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**38.2**	**60.5**	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0018**	**0.0027**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0161**	**0.0140**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		**0.0008**	<0.0002	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	**0.0002**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		**0.0002**	<0.0002	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		**0.0005**	<0.0002	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD009_221118	0902_SD013_221118	----	----	----
				Sampling date / time	18-Nov-2022 09:00	18-Nov-2022 11:30	----	----	----
Compound	CAS Number	LOR	Unit		ES2241892-006	ES2241892-007	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0194**	**0.0169**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0179**	**0.0167**	----	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0179**	**0.0169**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**82.0**	**82.0**	----	----	----
13C8-PFOA	----	0.0002	%		**88.0**	**89.5**	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW009_221118	0902_SW013_221118	----	----	----
				Sampling date / time	18-Nov-2022 09:00	18-Nov-2022 11:35	----	----	----
Compound	CAS Number	LOR	Unit		ES2241892-008	ES2241892-009	--------	--------	--------
					Result	Result	----	----	----
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L		<1	----	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	----	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		79	----	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L		79	----	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		46	----	----	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		430	----	----	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		28	----	----	----	----
Magnesium	7439-95-4	1	mg/L		36	----	----	----	----
Sodium	7440-23-5	1	mg/L		188	----	----	----	----
Potassium	7440-09-7	1	mg/L		9	----	----	----	----
EG020T: Total Metals by ICP-MS									
Aluminium	7429-90-5	0.01	mg/L		1.05	----	----	----	----
Manganese	7439-96-5	0.001	mg/L		0.552	----	----	----	----
Iron	7439-89-6	0.05	mg/L		3.56	----	----	----	----
Bromine	7726-95-6	0.1	mg/L		1.0	----	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		0.10	----	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		0.02	----	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		1.48	----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		1.50	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		1.6	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		3.1	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		0.20	----	----	----	----
EN055: Ionic Balance									

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW009_221118	0902_SW013_221118	----	----	----
				Sampling date / time	18-Nov-2022 09:00	18-Nov-2022 11:35	----	----	----
Compound	CAS Number	LOR	Unit		ES2241892-008	ES2241892-009	--------	--------	--------
					Result	Result	----	----	----
EN055: Ionic Balance - Continued									
ø **Total Anions**	----	0.01	meq/L		**14.7**	----	----	----	----
ø **Total Cations**	----	0.01	meq/L		**12.8**	----	----	----	----
ø **Ionic Balance**	----	0.01	%		**6.92**	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.04**	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.03**	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.08**	**0.21**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.14**	**0.14**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.02**	**0.04**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW009_221118	0902_SW013_221118	----	----	----
				Sampling date / time	18-Nov-2022 09:00	18-Nov-2022 11:35	----	----	----
Compound	CAS Number	LOR	Unit		ES2241892-008	ES2241892-009	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.24**	**0.46**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.22**	**0.35**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.24**	**0.43**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**102**	**96.6**	----	----	----
13C8-PFOA	----	0.02	%		**97.2**	**97.4**	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **RINSATE**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SEDIMENT**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **SURFACE WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2241892**	Page	: 1 of 8
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 18-Nov-2022
Site	: 0902_18/11/22	Issue Date	: 25-Nov-2022
Sampler	: JESSICA ROY	No. of samples received	: 10
Order number	: 60612562_5.1	No. of samples analysed	: 10

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2241892--002	0902_MW013_221118	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)								
HDPE Soil Jar (EA055)								
0902_SD009_221118,	0902_SD013_221118	**18-Nov-2022**	**----**	----	----	**22-Nov-2022**	02-Dec-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE Soil Jar (EP231X)								
0902_SD009_221118,	0902_SD013_221118	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	01-Jan-2023	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE Soil Jar (EP231X)								
0902_SD009_221118,	0902_SD013_221118	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	01-Jan-2023	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE Soil Jar (EP231X)								
0902_SD009_221118,	0902_SD013_221118	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	01-Jan-2023	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE Soil Jar (EP231X)								
0902_SD009_221118,	0902_SD013_221118	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	01-Jan-2023	✓
EP231P: PFAS Sums								
HDPE Soil Jar (EP231X)								
0902_SD009_221118,	0902_SD013_221118	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	01-Jan-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
ED037P: Alkalinity by PC Titrator							
Clear Plastic Bottle - Natural (ED037-P)							
0902_SW009_221118, 0902_QC306_221118	**18-Nov-2022**	**----**	----	----	**19-Nov-2022**	02-Dec-2022	✓
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA							
Clear Plastic Bottle - Natural (ED041G)							
0902_SW009_221118, 0902_QC306_221118	**18-Nov-2022**	**----**	----	----	**19-Nov-2022**	16-Dec-2022	✓
ED045G: Chloride by Discrete Analyser							
Clear Plastic Bottle - Natural (ED045G)							
0902_SW009_221118, 0902_QC306_221118	**18-Nov-2022**	**----**	----	----	**19-Nov-2022**	16-Dec-2022	✓
ED093F: Dissolved Major Cations							
Clear Plastic Bottle - Natural (ED093F)							
0902_SW009_221118	**18-Nov-2022**	**----**	----	----	**22-Nov-2022**	25-Nov-2022	✓
Clear Plastic Bottle - Nitric Acid; Filtered (ED093F)							
0902_QC306_221118	**18-Nov-2022**	**----**	----	----	**22-Nov-2022**	16-Dec-2022	✓
EG020T: Total Metals by ICP-MS							
Clear Plastic Bottle - Natural (EG020A-T)							
0902_QC306_221118	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**22-Nov-2022**	17-May-2023	✓
Clear Plastic Bottle - Nitric Acid; Unfiltered (EG020A-T)							
0902_SW009_221118	**18-Nov-2022**	**22-Nov-2022**	17-May-2023	✓	**22-Nov-2022**	17-May-2023	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G)							
0902_SW009_221118, 0902_QC306_221118	**18-Nov-2022**	**----**	----	----	**23-Nov-2022**	16-Dec-2022	✓
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural (EK057G)							
0902_SW009_221118, 0902_QC306_221118	**18-Nov-2022**	**----**	----	----	**19-Nov-2022**	20-Nov-2022	✓
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK059G)							
0902_SW009_221118, 0902_QC306_221118	**18-Nov-2022**	**----**	----	----	**23-Nov-2022**	16-Dec-2022	✓
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK061G)							
0902_SW009_221118, 0902_QC306_221118	**18-Nov-2022**	**23-Nov-2022**	16-Dec-2022	✓	**23-Nov-2022**	16-Dec-2022	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK067G)							
0902_SW009_221118, 0902_QC306_221118	**18-Nov-2022**	**23-Nov-2022**	16-Dec-2022	✓	**23-Nov-2022**	16-Dec-2022	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW012_221118, 0902_MW013_221118, 0902_MW014_221118, 0902_MW015_221118, 0902_MW017_221118, 0902_SW009_221118, 0902_SW013_221118, 0902_QC306_221118	**18-Nov-2022**	**23-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	17-May-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW012_221118, 0902_MW013_221118, 0902_MW014_221118, 0902_MW015_221118, 0902_MW017_221118, 0902_SW009_221118, 0902_SW013_221118, 0902_QC306_221118	**18-Nov-2022**	**23-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	17-May-2023	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0902_MW012_221118, 0902_MW013_221118, 0902_MW014_221118, 0902_MW015_221118, 0902_MW017_221118, 0902_SW009_221118, 0902_SW013_221118, 0902_QC306_221118	**18-Nov-2022**	**23-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	17-May-2023	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW012_221118, 0902_MW013_221118, 0902_MW014_221118, 0902_MW015_221118, 0902_MW017_221118, 0902_SW009_221118, 0902_SW013_221118, 0902_QC306_221118	**18-Nov-2022**	**23-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	17-May-2023	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0902_MW012_221118, 0902_MW013_221118, 0902_MW014_221118, 0902_MW015_221118, 0902_MW017_221118, 0902_SW009_221118, 0902_SW013_221118, 0902_QC306_221118	**18-Nov-2022**	**23-Nov-2022**	17-May-2023	✓	**24-Nov-2022**	17-May-2023	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	1	7	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	10	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Alkalinity by Auto Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	3	27	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	4	31	12.90	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	16	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	4	32	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	2	17	11.76	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by Auto Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	4	27	14.81	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	31	6.45	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	16	6.25	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	4	32	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	3	19	15.79	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	3	20	15.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	27	**7.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	31	**6.45**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	32	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	27	**7.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	31	**6.45**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	32	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Metals by ICP-MS - Suite A	EG020A-T	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Alkalinity by Auto Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. PC Titrate) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO4. Dissolved sulfate is determined in a 0.45um filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO4 suspension is measured by a photometer and the SO4-2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G.The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocynate forms highly-coloured ferric thiocynate which is measured at 480 nm.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Total Metals by ICP-MS - Suite A	EG020A-T	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)

Analytical Methods	Method	Matrix	Method Descriptions
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO3-. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030F. This method is compliant with NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Digestion for Total Recoverable Metals	EN25	WATER	In house: Referenced to USEPA SW846-3005. Method 3005 is a Nitric/Hydrochloric acid digestion procedure used to prepare surface and ground water samples for analysis by ICPAES or ICPMS. This method is compliant with NEPM Schedule B(3)
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2241892**	Page	: 1 of 13
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 18-Nov-2022
Order number	: 60612562_5.1	Date Analysis Commenced	: 19-Nov-2022
C-O-C number	: 45051	Issue Date	: 25-Nov-2022
Sampler	: JESSICA ROY		
Site	: 0902_18/11/22		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 10		
No. of samples analysed	: 10		

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Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 4718345)									
ES2241652-001	Anonymous	EA055: Moisture Content	----	0.1	%	11.7	11.7	0.0	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4716847)									
ES2241538-005	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4716847)									
ES2241538-005	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4716847)									
ES2241538-005	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4716847) - continued									
ES2241538-005	Anonymous	EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4716847)									
ES2241538-005	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
ED037P: Alkalinity by PC Titrator (QC Lot: 4713635)									
ES2241799-013	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	29	30	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	29	30	0.0	0% - 20%
ES2241847-005	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	205	206	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	205	206	0.0	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4713478)									
ES2241871-003	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	23	22	0.0	0% - 20%
ES2241809-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<10	<10	0.0	No Limit
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 4713621)									
WN2214597-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	479	474	0.9	0% - 20%
ES2241795-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	24	24	0.0	0% - 20%
ED045G: Chloride by Discrete Analyser (QC Lot: 4713479)									
ES2241809-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	30	30	0.0	0% - 20%

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
ED045G: Chloride by Discrete Analyser (QC Lot: 4713622)									
WN2214597-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	117	117	0.0	0% - 20%
ES2241795-001	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	142	142	0.0	0% - 20%
ED093F: Dissolved Major Cations (QC Lot: 4718497)									
ES2241608-001	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	2	3	0.0	No Limit
		ED093F: Magnesium	7439-95-4	1	mg/L	1	1	0.0	No Limit
		ED093F: Sodium	7440-23-5	1	mg/L	14	16	11.9	0% - 50%
		ED093F: Potassium	7440-09-7	1	mg/L	3	3	0.0	No Limit
ES2241838-007	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	180	194	7.4	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	27	30	8.8	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	332	358	7.6	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	2	2	0.0	No Limit
EG020T: Total Metals by ICP-MS (QC Lot: 4718399)									
ES2241944-003	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	0.166	0.169	1.7	0% - 20%
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	10.7	10.9	2.0	0% - 20%
		EG020A-T: Iron	7439-89-6	0.05	mg/L	7.11	7.25	2.0	0% - 20%
ES2241850-001	Anonymous	EG020A-T: Manganese	7439-96-5	0.001	mg/L	0.424	0.430	1.4	0% - 20%
		EG020A-T: Aluminium	7429-90-5	0.01	mg/L	0.49	0.54	10.6	0% - 20%
		EG020A-T: Iron	7439-89-6	0.05	mg/L	0.66	0.68	3.7	0% - 50%
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 4719824)									
ES2241846-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.10	<0.10	0.0	No Limit
ES2241892-010	0902_QC306_221118	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4713480)									
ES2241846-004	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	0.28	0.28	0.0	0% - 20%
ES2241809-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 4713624)									
WN2214597-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2241795-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	0.08	0.08	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 4719825)									
ES2241846-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.17	0.16	0.0	0% - 50%
ES2241892-010	0902_QC306_221118	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 4719829)									
ES2241846-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.5	<0.5	0.0	No Limit
ES2241893-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	25.1	24.5	2.5	0% - 50%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 4719828)									
ES2241846-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.05	0.09	57.7	No Limit
ES2241893-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	13.2	13.4	1.1	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4716591)									
ES2241892-008	0902_SW009_221118	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.08	0.08	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4716591) - continued									
ES2241892-008	0902_SW009_221118	EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.14	0.13	0.0	0% - 50%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2241892-009	0902_SW013_221118	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.21	0.22	0.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.14	0.15	0.0	0% - 50%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.03	0.04	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4716591)									
ES2241892-008	0902_SW009_221118	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2241892-009	0902_SW013_221118	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4716591)									
ES2241892-008	0902_SW009_221118	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4716591) - continued									
ES2241892-008	0902_SW009_221118	EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2241892-009	0902_SW013_221118	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4716591)									
ES2241892-008	0902_SW009_221118	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2241892-009	0902_SW013_221118	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4716591)									
ES2241892-008	0902_SW009_221118	EP231X: Sum of PFAS	----	0.01	µg/L	0.24	0.24	0.0	0% - 20%
ES2241892-009	0902_SW013_221118	EP231X: Sum of PFAS	----	0.01	µg/L	0.46	0.49	6.3	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4716847)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	83.2	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.6	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.6	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	94.4	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4716847)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	90.2	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	85.2	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	96.0	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.6	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.0	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	87.2	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	107	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4716847)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	108	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	112	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	104	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	110	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4716847)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	99.2	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	99.6	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	107	65.0	137

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4716847) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	104	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
ED037P: Alkalinity by PC Titrator (QCLot: 4713635)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	99.6	81.0	111
				----	50 mg/L	111	80.0	120
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4713478)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	100	82.0	122
				<1	500 mg/L	94.7	82.0	122
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4713621)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	96.3	82.0	122
				<1	500 mg/L	97.1	82.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 4713479)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	100	80.9	127
				<1	1000 mg/L	103	80.9	127
ED045G: Chloride by Discrete Analyser (QCLot: 4713622)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	99.4	80.9	127
				<1	1000 mg/L	101	80.9	127
ED093F: Dissolved Major Cations (QCLot: 4718497)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	98.2	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	100	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	97.2	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	96.9	85.0	113
EG020T: Total Metals by ICP-MS (QCLot: 4718399)								
EG020A-T: Aluminium	7429-90-5	0.01	mg/L	<0.01	0.5 mg/L	92.0	82.0	120
EG020A-T: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	94.6	85.0	113
EG020A-T: Iron	7439-89-6	0.05	mg/L	<0.05	0.5 mg/L	95.1	85.0	117
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4719824)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	101	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4713480)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	101	82.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4713624)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	97.7	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4719825)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	107	91.0	113
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4719829)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4719829) - continued								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	10 mg/L	90.3	69.0	101
				<0.1	1 mg/L	92.7	70.0	118
				<0.1	5 mg/L	99.1	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4719828)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	4.42 mg/L	99.5	71.3	126
				<0.01	0.442 mg/L	97.2	71.3	126
				<0.01	1 mg/L	116	71.3	126
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4716591)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	79.8	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	77.2	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	72.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	88.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	82.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	83.4	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4716591)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	85.4	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	80.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	85.2	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	85.2	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	88.2	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	94.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	85.4	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	97.4	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	88.4	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	116	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	102	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4716591)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	84.2	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	77.8	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	83.7	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	78.3	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	84.0	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	90.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	90.4	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4716591)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4716591) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	85.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	97.6	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	88.0	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	85.8	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
				Concentration	MS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4716847)							
ES2241538-005	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	90.0	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	115	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	105	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	109	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	104	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	104	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4716847)							
ES2241538-005	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	99.0	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	102	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	116	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	116	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	115	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	107	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	100	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	107	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	121	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	95.6	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	125	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4716847)							
ES2241538-005	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	122	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	127	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	118	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	125	68.7	130

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4716847) - continued							
ES2241538-005	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	118	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	118	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	126	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4716847)							
ES2241538-005	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	110	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	116	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	114	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	114	69.2	143

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4713478)							
ES2241809-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	105	70.0	130
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 4713621)							
ES2241795-001	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	10 mg/L	86.5	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4713479)							
ES2241809-001	Anonymous	ED045G: Chloride	16887-00-6	50 mg/L	113	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 4713622)							
ES2241795-001	Anonymous	ED045G: Chloride	16887-00-6	50 mg/L	118	70.0	130
EG020T: Total Metals by ICP-MS (QCLot: 4718399)							
ES2241817-001	Anonymous	EG020A-T: Manganese	7439-96-5	1 mg/L	100	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 4719824)							
ES2241846-001	Anonymous	EK055G: Ammonia as N	7664-41-7	10 mg/L	118	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4713480)							
ES2241809-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	102	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 4713624)							
ES2241795-001	Anonymous	EK057G: Nitrite as N	14797-65-0	0.5 mg/L	102	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 4719825)							
ES2241846-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	111	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 4719829)							
ES2241846-002	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	25 mg/L	102	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 4719828)							
ES2241846-002	Anonymous	EK067G: Total Phosphorus as P	----	5 mg/L	120	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4716591)							
ES2241892-002	0902_MW013_221118	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	87.6	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	89.4	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	# Not Determined	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	93.8	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	86.4	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	94.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4716591)							
ES2241892-002	0902_MW013_221118	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	93.0	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	96.6	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	102	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	105	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	96.8	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	108	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	102	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	121	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	104	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	124	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	122	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4716591)							
ES2241892-002	0902_MW013_221118	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	102	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	100	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	112	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	99.4	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	97.8	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	105	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	124	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4716591)							
ES2241892-002	0902_MW013_221118	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	101	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	101	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	98.6	67.0	138

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4716591) - continued							
ES2241892-002	0902_MW013_221118	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	91.0	71.4	144

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2241892**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: jessica.roy@aecom.com	E-mail	: Sepan.Mahamad@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 4
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 45051	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0902_18/11/22		
Sampler	: JESSICA ROY		

Dates

Date Samples Received	: 18-Nov-2022 15:36	Issue Date	: 18-Nov-2022
Client Requested Due Date	: 25-Nov-2022	Scheduled Reporting Date	: **25-Nov-2022**

Delivery Details

Mode of Delivery	: Client Drop Off	Security Seal	: Not Available
No. of coolers/boxes	: 1	Temperature	: 8.4'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 10 / 10

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

Method Sample ID	Sample Container Received	Preferred Sample Container for Analysis
Total Metals by ICP-MS - Suite A : EG020A-T		
0902_QC306_221118	- Clear Plastic Bottle - Natural	- Clear Plastic Bottle - Nitric Acid; Unfiltered

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2241892-006	18-Nov-2022 09:00	0902_SD009_221118	✓	✓
ES2241892-007	18-Nov-2022 11:30	0902_SD013_221118	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EG020T Total Metals by ICP/MS (including digestion)	WATER - EP231X PFAS - Full Suite (28 analytes)	WATER - NT-01 & 02 Ca, Mg, Na, K, Cl, SO4, Alkalinity	WATER - NT-08 Total Nitrogen + NO2 + NO3 + NH3 + Total P
ES2241892-001	18-Nov-2022 09:30	0902_MW012_221118		✓		
ES2241892-002	18-Nov-2022 11:15	0902_MW013_221118		✓		
ES2241892-003	18-Nov-2022 12:10	0902_MW014_221118		✓		
ES2241892-004	18-Nov-2022 12:32	0902_MW015_221118		✓		
ES2241892-005	18-Nov-2022 11:58	0902_MW017_221118		✓		
ES2241892-008	18-Nov-2022 09:00	0902_SW009_221118	✓	✓	✓	✓
ES2241892-009	18-Nov-2022 11:35	0902_SW013_221118		✓		
ES2241892-010	18-Nov-2022 13:50	0902_QC306_221118	✓	✓	✓	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE		
- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com
ANDREW SPOOR		
- *AU Certificate of Analysis - NATA (COA)	Email	Andrew.Spoor@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Andrew.Spoor@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Andrew.Spoor@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Andrew.Spoor@aecom.com
- Chain of Custody (CoC) (COC)	Email	Andrew.Spoor@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Andrew.Spoor@aecom.com
- EDI Format - XTab (XTAB)	Email	Andrew.Spoor@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Andrew.Spoor@aecom.com
CATHERINE HANSEN		
- *AU Certificate of Analysis - NATA (COA)	Email	catherine.hansen@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	catherine.hansen@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	catherine.hansen@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	catherine.hansen@aecom.com
- Chain of Custody (CoC) (COC)	Email	catherine.hansen@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	catherine.hansen@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	catherine.hansen@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	catherine.hansen@aecom.com
DERP ESDAT REPORTS		
- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au
GEOFF TREDINNICK		
- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Geoff.Tredinnick@aecom.com
JESSICA ROY		
- *AU Certificate of Analysis - NATA (COA)	Email	jessica.roy@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jessica.roy@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jessica.roy@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	jessica.roy@aecom.com
- Chain of Custody (CoC) (COC)	Email	jessica.roy@aecom.com
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	jessica.roy@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	jessica.roy@aecom.com
- EDI Format - XTab (XTAB)	Email	jessica.roy@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	jessica.roy@aecom.com
MAT JENKINS		
- *AU Certificate of Analysis - NATA (COA)	Email	mat.jenkins@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	mat.jenkins@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	mat.jenkins@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	mat.jenkins@aecom.com
NICOLA TOMLIN		
- *AU Certificate of Analysis - NATA (COA)	Email	nicola.tomlin@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	nicola.tomlin@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	nicola.tomlin@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	nicola.tomlin@aecom.com
- Chain of Custody (CoC) (COC)	Email	nicola.tomlin@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	nicola.tomlin@aecom.com
- EDI Format - XTab (XTAB)	Email	nicola.tomlin@aecom.com

NICOLA TOMLIN

- Electronic SRN for EQuIS (ESRN_EQUIS) Email nicola.tomlin@aecom.com

CHAIN OF CUSTODY

(ALS) COC#: 45051 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 18/11/22 1536	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_18/11/22

ORDER NO: 60612562_5.1

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW012_221118		18/11/2022 09:30 AM	Water	ALS: 3 Non ALS: 0	No			X		
002	0902_MW013_221118		18/11/2022 11:15 AM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume
003	0902_MW014_221118		18/11/2022 12:10 PM	Water	ALS: 3 Non ALS: 0	No			X		
004	0902_MW015_221118		18/11/2022 12:32 PM	Water	ALS: 3 Non ALS: 0	No			X		
005	0902_MW017_221118		18/11/2022 11:58 AM	Water	ALS: 3 Non ALS: 0	No			X		
006	0902_SD009_221118		18/11/2022 09:00 AM	Soil	ALS: 1 Non ALS: 0	No		X			
007	0902_SD013_221118		18/11/2022 11:30 AM	Soil	ALS: 1 Non ALS: 0	No		X			
008	0902_SW009_221118		18/11/2022 09:00 AM	Water	ALS: 8 Non ALS: 0	No	X				Extra volume
009	0902_SW013_221118		18/11/2022 11:35 AM	Water	ALS: 5 Non ALS: 0	No			X		Extra volume

Environmental Division Sydney

Work Order Reference

ES2241892

Telephone : +61-2-8784 8555

HT

Friday, November 18, 2022 4:26:16 AM

CHAIN OF CUSTODY

ALS COC#: 45051 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 18/11/22 1536	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_18/11/22

ORDER NO: 60612562_5.1

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED				
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS + Additional WATER	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_QC306_221118		18/11/2022 01:50 PM	Water	ALS: 6 Non ALS: 0	No	X				

CHAIN OF CUSTODY

(ALS) COC#: 45051 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 18/11/22 1536	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_18/11/22

ORDER NO: 60612562_5.1

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

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EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW012_221118	HDPE (no PTFE)	20 mL	00350821010993	Grey	No	
001	0902_MW012_221118	HDPE (no PTFE)	20 mL	00350821010883	Grey	No	
001	0902_MW012_221118	HDPE (no PTFE)	20 mL	00350821010706	Grey	No	
002	0902_MW013_221118	HDPE (no PTFE)	20 mL	00350821010715	Grey	No	
002	0902_MW013_221118	HDPE (no PTFE)	20 mL	00350821010705	Grey	No	
002	0902_MW013_221118	HDPE (no PTFE)	20 mL	00350821010721	Grey	No	
002	0902_MW013_221118	HDPE (no PTFE)	20 mL	00350821010994	Grey	No	
002	0902_MW013_221118	HDPE (no PTFE)	20 mL	00350821010861	Grey	No	
003	0902_MW014_221118	HDPE (no PTFE)	20 mL	00350821010849	Grey	No	
003	0902_MW014_221118	HDPE (no PTFE)	20 mL	00350821010843	Grey	No	
003	0902_MW014_221118	HDPE (no PTFE)	20 mL	00350821010820	Grey	No	
004	0902_MW015_221118	HDPE (no PTFE)	20 mL	00350821010999	Grey	No	
004	0902_MW015_221118	HDPE (no PTFE)	20 mL	00350821010785	Grey	No	
004	0902_MW015_221118	HDPE (no PTFE)	20 mL	00350821010720	Grey	No	
005	0902_MW017_221118	HDPE (no PTFE)	20 mL	00350821010799	Grey	No	
005	0902_MW017_221118	HDPE (no PTFE)	20 mL	00350821010708	Grey	No	
005	0902_MW017_221118	HDPE (no PTFE)	20 mL	00350821010742	Grey	No	
006	0902_SD009_221118	HDPE Soil Jar	200 mL	00620322023632	Grey	No	
007	0902_SD013_221118	HDPE Soil Jar	200 mL	00620322023581	Grey	No	
008	0902_SW009_221118	Clear Plastic Bottle - Natural	500 mL	00070121127855	Green	No	
008	0902_SW009_221118	Clear Plastic Bottle - Nitric Acid; Unfiltered	60 mL	00122205012692	Red	Yes	
008	0902_SW009_221118	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522018632	Purple	No	
008	0902_SW009_221118	HDPE (no PTFE)	20 mL	00350821010858	Grey	No	
008	0902_SW009_221118	HDPE (no PTFE)	20 mL	00350821010872	Grey	No	
008	0902_SW009_221118	HDPE (no PTFE)	20 mL	00350821010762	Grey	No	
008	0902_SW009_221118	HDPE (no PTFE)	20 mL	00350821010862	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 45051 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME:	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902_18/11/22

ORDER NO: 60612562_5.1

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Jack Rawsthorne

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

008	0902_SW009_221118	HDPE (no PTFE)	20 mL	00350821010867	Grey	No	
009	0902_SW013_221118	HDPE (no PTFE)	20 mL	00350821010782	Grey	No	
009	0902_SW013_221118	HDPE (no PTFE)	20 mL	00350821010891	Grey	No	
009	0902_SW013_221118	HDPE (no PTFE)	20 mL	00350821010818	Grey	No	
009	0902_SW013_221118	HDPE (no PTFE)	20 mL	00350821010729	Grey	No	
009	0902_SW013_221118	HDPE (no PTFE)	20 mL	00350821010760	Grey	No	
010	0902_QC306_221118	HDPE (no PTFE)	20 mL	00350821010889	Grey	No	
010	0902_QC306_221118	HDPE (no PTFE)	20 mL	00350821010740	Grey	No	
010	0902_QC306_221118	HDPE (no PTFE)	20 mL	00350821010848	Grey	No	
010	0902_QC306_221118	Clear Plastic Bottle - Natural	500 mL	00071121059445	Green	No	
010	0902_QC306_221118	Clear Plastic Bottle - Sulfuric Acid	60 mL	00100522062853	Purple	No	
010	0902_QC306_221118	Clear Plastic Bottle - Nitric Acid; Filtered	60 mL	00122205012658	Red	Yes	

Total Bottle Count: ALS: 38, Non ALS: 0

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2242128**	Page	: 1 of 7
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 22-Nov-2022 15:00
Order number	: 60612562_5.1	Date Analysis Commenced	: 23-Nov-2022
C-O-C number	: 44404	Issue Date	: 29-Nov-2022 15:01
Sampler	: JESSICA ROY		
Site	: 0902		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 3		
No. of samples analysed	: 3		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW045_221121	0902_MW082_221121 Extra volume	----	----	----
				Sampling date / time	21-Nov-2022 09:00	21-Nov-2022 10:20	----	----	----
Compound	CAS Number	LOR	Unit		ES2242128-001	ES2242128-002	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.06**	<0.01	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.03**	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW045_221121	0902_MW082_221121 Extra volume	----	----	----
				Sampling date / time	21-Nov-2022 09:00	21-Nov-2022 10:20	----	----	----
Compound	CAS Number	LOR	Unit		ES2242128-001	ES2242128-002	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.09**	<0.01	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.09**	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.09**	<0.01	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**97.2**	**98.0**	----	----	----
13C8-PFOA	----	0.02	%		**95.3**	**96.5**	----	----	----

Analytical Results

Sub-Matrix: **RINSATE** (Matrix: **WATER**)				Sample ID	0902_QC307_221121	----	----	----	----
				Sampling date / time	21-Nov-2022 13:40	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2242128-003	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC307_221121	----	----	----	----
				Sampling date / time	21-Nov-2022 13:40	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2242128-003	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**94.6**	----	----	----	----
13C8-PFOA	----	0.02	%		**96.9**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: **RINSATE**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2242128**	Page	: 1 of 4
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 22-Nov-2022
Site	: 0902	Issue Date	: 29-Nov-2022
Sampler	: JESSICA ROY	No. of samples received	: 3
Order number	: 60612562_5.1	No. of samples analysed	: 3

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0902_MW045_221121, 0902_QC307_221121	0902_MW082_221121 - Extra volume,	**21-Nov-2022**	**24-Nov-2022**	20-May-2023	✓	**25-Nov-2022**	20-May-2023	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X)								
0902_MW045_221121, 0902_QC307_221121	0902_MW082_221121 - Extra volume,	**21-Nov-2022**	**24-Nov-2022**	20-May-2023	✓	**25-Nov-2022**	20-May-2023	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X)								
0902_MW045_221121, 0902_QC307_221121	0902_MW082_221121 - Extra volume,	**21-Nov-2022**	**24-Nov-2022**	20-May-2023	✓	**25-Nov-2022**	20-May-2023	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0902_MW045_221121, 0902_QC307_221121	0902_MW082_221121 - Extra volume,	**21-Nov-2022**	**24-Nov-2022**	20-May-2023	✓	**25-Nov-2022**	20-May-2023	✓
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X)								
0902_MW045_221121, 0902_QC307_221121	0902_MW082_221121 - Extra volume,	**21-Nov-2022**	**24-Nov-2022**	20-May-2023	✓	**25-Nov-2022**	20-May-2023	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2242128**	Page	: 1 of 7
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP	Date Samples Received	: 22-Nov-2022
Order number	: 60612562_5.1	Date Analysis Commenced	: 23-Nov-2022
C-O-C number	: 44404	Issue Date	: 29-Nov-2022
Sampler	: JESSICA ROY		
Site	: 0902		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 3		
No. of samples analysed	: 3		

ilac-MRA NATA
Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4723192)									
ES2242128-001	0902_MW045_221121	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.06	0.07	30.1	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.03	0.06	57.9	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2242278-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4723192)									
ES2242128-001	0902_MW045_221121	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4723192) - continued									
ES2242278-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.03	0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.13	0.12	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4723192)									
ES2242128-001	0902_MW045_221121	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2242278-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4723192)									
ES2242128-001	0902_MW045_221121	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4723192) - continued									
ES2242128-001	0902_MW045_221121	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2242278-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4723192)									
ES2242128-001	0902_MW045_221121	EP231X: Sum of PFAS	----	0.01	µg/L	0.09	0.13	36.4	0% - 50%
ES2242278-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.26	0.24	8.0	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4723192)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	77.8	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	94.0	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	83.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	95.0	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	80.2	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	76.2	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4723192)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	79.2	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	88.8	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	93.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	87.8	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	85.4	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	87.4	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	83.2	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	93.4	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	95.2	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	80.2	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	96.6	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4723192)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	95.8	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	78.6	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	88.8	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	91.6	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	101	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	94.0	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	99.4	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4723192)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	81.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	87.4	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	88.8	67.0	138

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4723192) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	81.4	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4723192)							
ES2242128-002	0902_MW082_221121 Extra volume	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	76.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	91.6	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	80.0	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	83.8	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	79.8	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	77.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4723192)							
ES2242128-002	0902_MW082_221121 Extra volume	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	79.5	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	89.4	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	89.8	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	84.6	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	80.6	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	81.8	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	78.4	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	92.4	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	95.6	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	73.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	88.7	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4723192)							
ES2242128-002	0902_MW082_221121 Extra volume	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	93.6	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	80.4	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	92.3	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	86.9	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	97.6	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	82.8	65.0	136

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4723192) - continued							
ES2242128-002	0902_MW082_221121 Extra volume	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	89.4	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4723192)							
ES2242128-002	0902_MW082_221121 Extra volume	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	80.2	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	83.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	84.6	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	74.2	71.4	144

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2242128**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: jessica.roy@aecom.com	E-mail	: Sepan.Mahamad@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP	Page	: 1 of 4
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 44404	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0902		
Sampler	: JESSICA ROY		

Dates

Date Samples Received	: 22-Nov-2022 15:00	Issue Date	: 22-Nov-2022
Client Requested Due Date	: 29-Nov-2022	Scheduled Reporting Date	: **29-Nov-2022**

Delivery Details

Mode of Delivery	: Pickup	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 6.6'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 3 / 3

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Any sample identifications that cannot be displayed entirely in the analysis summary table will be listed below.

ES2242128-002 : 21-Nov-2022 10:20 : 0902_MW082_221121 - Extra volume

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (28 analytes)
ES2242128-001	21-Nov-2022 09:00	0902_MW045_221121	✓
ES2242128-002	21-Nov-2022 10:20	0902_MW082_221121 E...	✓
ES2242128-003	21-Nov-2022 13:40	0902_QC307_221121	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

ANDREW SPOOR

- *AU Certificate of Analysis - NATA (COA)	Email	Andrew.Spoor@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Andrew.Spoor@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Andrew.Spoor@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Andrew.Spoor@aecom.com
- Chain of Custody (CoC) (COC)	Email	Andrew.Spoor@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Andrew.Spoor@aecom.com
- EDI Format - XTab (XTAB)	Email	Andrew.Spoor@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Andrew.Spoor@aecom.com

CATHERINE HANSEN

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- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
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- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com
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- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	jessica.roy@aecom.com
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- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	jessica.roy@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	jessica.roy@aecom.com
- EDI Format - XTab (XTAB)	Email	jessica.roy@aecom.com
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- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	mat.jenkins@aecom.com
- Chain of Custody (CoC) (COC)	Email	mat.jenkins@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	mat.jenkins@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	mat.jenkins@aecom.com
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- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	nicola.tomlin@aecom.com
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NICOLA TOMLIN

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CHAIN OF CUSTODY

(ALS) COC#: 44404 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 22/11/22 1500	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902

ORDER NO: 60612562_5.1

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW045_221121		21/11/2022 09:00 AM	WATER	ALS: 5 Non ALS: 0	No	X		Extra volume
002	0902_MW082_221121	Extra volume	21/11/2022 10:20 AM	WATER	ALS: 5 Non ALS: 0	No	X		Extra volume
003	0902_QC307_221121		21/11/2022 01:40 PM	WATER	ALS: 3 Non ALS: 0	No	X		

Environmental Division
Sydney
Work Order Reference
ES2242128

Telephone : + 61-2-8784 8555

CHAIN OF CUSTODY

(ALS) COC#: 44404 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 22/11/22 15:00	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP

SITE: 0902

ORDER NO: 60612562_5.1

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO: geoff.tredinnick@aecom.com, mat.jenkins@aecom.com, andrew.spoor@aecom.com, nicola.tomlin@aecom.com

EMAIL INVOICES TO: geoff.tredinnick@aecom.com

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW045_221121	HDPE (no PTFE)	20 mL	00350821010855	Grey	No	
001	0902_MW045_221121	HDPE (no PTFE)	20 mL	00350821010757	Grey	No	
001	0902_MW045_221121	HDPE (no PTFE)	20 mL	00350821010739	Grey	No	
001	0902_MW045_221121	HDPE (no PTFE)	20 mL	00350821010907	Grey	No	
001	0902_MW045_221121	HDPE (no PTFE)	20 mL	00350821010798	Grey	No	
002	0902_MW082_221121	HDPE (no PTFE)	20 mL	00350821010885	Grey	No	
002	0902_MW082_221121	HDPE (no PTFE)	20 mL	00350821010909	Grey	No	
002	0902_MW082_221121	HDPE (no PTFE)	20 mL	00350821010810	Grey	No	
002	0902_MW082_221121	HDPE (no PTFE)	20 mL	00350821010926	Grey	No	
002	0902_MW082_221121	HDPE (no PTFE)	20 mL	00350821010902	Grey	No	
003	0902_QC307_221121	HDPE (no PTFE)	20 mL	00350821010972	Grey	No	
003	0902_QC307_221121	HDPE (no PTFE)	20 mL	00350821010894	Grey	No	
003	0902_QC307_221121	HDPE (no PTFE)	20 mL	00350821010795	Grey	No	

Total Bottle Count: ALS: 13, Non ALS: 0

ALS Use Only

Custody Document for Submissions via ALS Compass App

Project: 60612562 **Client:** Defence **Project Manager:** Geoff Tredinnick
Phone: (04384295 78)

ALS Compass COC Reference: 44404 **# Samples:** 3 **Sampler:** Nicola Tomlin
Phone: (0478945466)

Turnaround Requirements: Standard ✓ Urgent

Special Instructions:	ALS Use Only			
	Custody seal intact?	YES	NO	N/A
	Free ice / frozen ice bricks upon receipt?	YES	NO	N/A
	Random sample temperature on receipt?		°C	

Custody:

Relinquished by:	**Received by:**	**Relinquished by:**	**Received by:**
NICOLA TOMLIN			
Date / Time:	**Date / Time:**	**Date / Time:**	**Date / Time:**
22/11/22 11:00 am			

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 310103

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	Geoff Tredinnick
Address	PO Box Q410, QVB Post Office, Sydney, NSW, 1230

Sample Details

Your Reference	**60612562_5.1, NSW_0902_PFASOMP**
Number of Samples	11 Water, 3 Soil
Date samples received	18/11/2022
Date completed instructions received	08/11/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	16/11/2022
Date of Issue	16/11/2022

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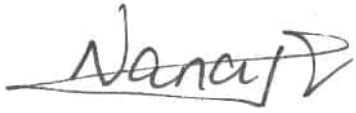
Results Approved By
Alexander Mitchell Maclean, Senior Chemist
Diego Bigolin, Inorganics Supervisor
Giovanni Agosti, Group Technical Manager
Josh Williams, Organics and LC Supervisor
Phalak Inthakesone, Organics Development Manager, Sydney

Authorised By



Nancy Zhang, Laboratory Manager

PFAS in Soils Extended				
Our Reference		310103-3	310103-7	310103-11
Your Reference	UNITS	0902_QC202_221103	0902_QC206_221107	0902_QC210_221107
Date Sampled		03/11/2022	07/11/2022	07/11/2022
Type of sample		Soil	Soil	Soil
Date prepared	-	11/11/2022	11/11/2022	11/11/2022
Date analysed	-	11/11/2022	11/11/2022	11/11/2022
Perfluorobutanesulfonic acid	µg/kg	0.1	3.8	<0.1
Perfluoropentanesulfonic acid	µg/kg	0.1	5.3	<0.1
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.9	69	0.3
Perfluoroheptanesulfonic acid	µg/kg	<0.1	19	<0.1
Perfluorooctanesulfonic acid PFOS	µg/kg	6.8	6,500	2.5
Perfluorodecanesulfonic acid	µg/kg	5.3	320	0.4
Perfluorobutanoic acid	µg/kg	<0.2	2	<0.2
Perfluoropentanoic acid	µg/kg	<0.2	5.1	<0.2
Perfluorohexanoic acid	µg/kg	0.1	14	<0.1
Perfluoroheptanoic acid	µg/kg	<0.1	14	<0.1
Perfluorooctanoic acid PFOA	µg/kg	<0.1	51	<0.1
Perfluorononanoic acid	µg/kg	<0.1	330	<0.1
Perfluorodecanoic acid	µg/kg	<0.5	2,600	<0.5
Perfluoroundecanoic acid	µg/kg	<0.5	4,600	<0.5
Perfluorododecanoic acid	µg/kg	<0.5	5,100	<0.5
Perfluorotridecanoic acid	µg/kg	<0.5	1,200	<0.5
Perfluorotetradecanoic acid	µg/kg	<5	980	<5
4:2 FTS	µg/kg	<0.1	<0.5	<0.1
6:2 FTS	µg/kg	<0.1	46	<0.1
8:2 FTS	µg/kg	<0.2	3,600	<0.2
10:2 FTS	µg/kg	<0.2	350	<0.2
Perfluorooctane sulfonamide	µg/kg	1	93	<1
N-Methyl perfluorooctane sulfonamide	µg/kg	<1	<5	<1
N-Ethyl perfluorooctanesulfon amide	µg/kg	<1	<5	<1
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<1	<5	<1
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5	<20	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	0.3	<1	<0.2
EtPerfluorooctanesulf amid oacetic acid	µg/kg	2.1	<1	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	99	90	100
Surrogate $^{13}C_2$ *PFOA*	%	94	93	91
Extracted ISTD $^{13}C_3$ *PFBS*	%	73	74	79
Extracted ISTD $^{18}O_2$ *PFHxS*	%	77	73	83
Extracted ISTD $^{13}C_4$ *PFOS*	%	71	104	82

PFAS in Soils Extended				
Our Reference		310103-3	310103-7	310103-11
Your Reference	UNITS	0902_QC202_221103	0902_QC206_221107	0902_QC210_221107
Date Sampled		03/11/2022	07/11/2022	07/11/2022
Type of sample		Soil	Soil	Soil
Extracted ISTD $^{13}C_4$ *PFBA*	%	80	83	87
Extracted ISTD $^{13}C_3$ *PFPeA*	%	79	79	82
Extracted ISTD $^{13}C_2$ *PFHxA*	%	80	82	88
Extracted ISTD $^{13}C_4$ *PFHpA*	%	84	79	88
Extracted ISTD $^{13}C_4$ *PFOA*	%	85	74	92
Extracted ISTD $^{13}C_5$ *PFNA*	%	75	54	84
Extracted ISTD $^{13}C_2$ *PFDA*	%	88	73	91
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	56	101	86
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	64	106	91
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	62	37	88
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	102	101	103
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	103	67	100
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	105	95	110
Extracted ISTD $^{13}C_8$ *FOSA*	%	52	81	79
Extracted ISTD d_3 *N MeFOSA*	%	51	30	85
Extracted ISTD d_5 *N EtFOSA*	%	57	38	88
Extracted ISTD d_7 *N MeFOSE*	%	56	22	84
Extracted ISTD d_9 *N EtFOSE*	%	64	42	86
Extracted ISTD d_3 *N MeFOSAA*	%	82	40	98
Extracted ISTD d_5 *N EtFOSAA*	%	46	28	82
Total Positive PFHxS & PFOS	µg/kg	7.7	6,600	2.9
Total Positive PFOS & PFOA	µg/kg	6.8	6,600	2.5
Total Positive PFAS	µg/kg	17	26,000	3.2

Moisture				
Our Reference		310103-3	310103-7	310103-11
Your Reference	UNITS	0902_QC202_221103	0902_QC206_221107	0902_QC210_221107
Date Sampled		03/11/2022	07/11/2022	07/11/2022
Type of sample		Soil	Soil	Soil
Date prepared	-	10/11/2022	10/11/2022	10/11/2022
Date analysed	-	11/11/2022	11/11/2022	11/11/2022
Moisture	%	45	52	37

PFAS in Waters Extended						
Our Reference		310103-1	310103-2	310103-4	310103-5	310103-6
Your Reference	UNITS	0902_QC200_221102	0902_QC201_221102	0902_QC203_221107	0902_QC204_221107	0902_QC205_221107
Date Sampled		02/11/2022	02/11/2022	07/11/2022	07/11/2022	07/11/2022
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	09/11/2022	09/11/2022	09/11/2022	09/11/2022	09/11/2022
Date analysed	-	09/11/2022	09/11/2022	09/11/2022	09/11/2022	09/11/2022
Perfluorobutanesulfonic acid	µg/L	0.09	0.20	<0.01	0.03	3.0
Perfluoropentanesulfonic acid	µg/L	0.10	0.19	<0.01	0.02	2.8
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.35	0.39	0.01	0.16	4.3
Perfluoroheptanesulfonic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	0.34	0.09	0.02	0.22	0.07
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	µg/L	0.02	0.03	<0.02	0.05	0.53
Perfluoropentanoic acid	µg/L	<0.02	0.03	<0.02	<0.02	0.66
Perfluorohexanoic acid	µg/L	0.06	0.09	<0.01	0.03	2.9
Perfluoroheptanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	0.40
Perfluorooctanoic acid PFOA	µg/L	<0.01	<0.01	<0.01	0.01	0.02
Perfluorononanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	µg/L	0.13	<0.01	<0.01	<0.01	0.01
8:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	94	94	95	96	92
Surrogate $^{13}C_2$ *PFOA*	%	99	97	97	98	96
Extracted ISTD $^{13}C_3$ *PFBS*	%	91	91	92	92	90
Extracted ISTD $^{18}O_2$ *PFHxS*	%	78	80	80	79	82
Extracted ISTD $^{13}C_4$ *PFOS*	%	93	95	92	95	97

PFAS in Waters Extended						
Our Reference		310103-1	310103-2	310103-4	310103-5	310103-6
Your Reference	UNITS	0902_QC200_221102	0902_QC201_221102	0902_QC203_221107	0902_QC204_221107	0902_QC205_221107
Date Sampled		02/11/2022	02/11/2022	07/11/2022	07/11/2022	07/11/2022
Type of sample		Water	Water	Water	Water	Water
Extracted ISTD $^{13}C_4$ *PFBA*	%	72	75	77	74	73
Extracted ISTD $^{13}C_3$ *PFPeA*	%	81	80	80	84	75
Extracted ISTD $^{13}C_2$ *PFHxA*	%	90	88	86	97	84
Extracted ISTD $^{13}C_4$ *PFHpA*	%	86	85	87	90	82
Extracted ISTD $^{13}C_4$ *PFOA*	%	87	88	84	91	84
Extracted ISTD $^{13}C_5$ *PFNA*	%	87	87	81	89	85
Extracted ISTD $^{13}C_2$ *PFDA*	%	89	92	94	98	90
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	99	104	99	106	100
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	98	100	95	101	97
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	69	86	81	85	83
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	65	63	65	93	54
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	61	63	58	87	51
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	78	80	80	95	69
Extracted ISTD $^{13}C_8$ *FOSA*	%	96	96	94	96	94
Extracted ISTD d_3 *N MeFOSA*	%	96	97	95	98	95
Extracted ISTD d_5 *N EtFOSA*	%	101	101	97	99	98
Extracted ISTD d_7 *N MeFOSE*	%	91	89	88	93	87
Extracted ISTD d_9 *N EtFOSE*	%	89	88	84	89	86
Extracted ISTD d_3 *N MeFOSAA*	%	78	76	78	97	74
Extracted ISTD d_5 *N EtFOSAA*	%	83	81	80	100	75
Total Positive PFHxS & PFOS	µg/L	0.69	0.48	0.03	0.38	4.3
Total Positive PFOA & PFOS	µg/L	0.34	0.09	0.02	0.23	0.09
Total Positive PFAS	µg/L	1.1	1.0	0.03	0.52	15

PFAS in Waters Extended						
Our Reference		310103-8	310103-9	310103-10	310103-12	310103-13
Your Reference	UNITS	0902_QC207_221107	0902_QC208_221107	0902_QC209_221107	0902_QC211_221108	0902_QC212_221108
Date Sampled		07/11/2022	07/11/2022	07/11/2022	08/11/2022	08/11/2022
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	09/11/2022	09/11/2022	09/11/2022	09/11/2022	09/11/2022
Date analysed	-	09/11/2022	09/11/2022	09/11/2022	09/11/2022	09/11/2022
Perfluorobutanesulfonic acid	µg/L	0.02	0.01	<0.01	0.27	0.08
Perfluoropentanesulfonic acid	µg/L	0.02	0.01	<0.01	0.33	0.1
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.16	0.04	0.03	2.2	0.58
Perfluoroheptanesulfonic acid	µg/L	0.01	<0.01	<0.01	0.07	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	0.14	<0.01	0.04	0.91	0.03
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	µg/L	0.06	<0.02	0.04	0.06	0.1
Perfluoropentanoic acid	µg/L	0.03	<0.02	<0.02	0.06	0.05
Perfluorohexanoic acid	µg/L	0.05	0.01	0.01	0.23	0.12
Perfluoroheptanoic acid	µg/L	0.02	<0.01	<0.01	0.04	0.01
Perfluorooctanoic acid PFOA	µg/L	0.03	<0.01	<0.01	0.06	<0.01
Perfluorononanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	µg/L	<0.01	0.05	<0.01	<0.01	<0.01
8:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	91	98	91	92	89
Surrogate $^{13}C_2$ *PFOA*	%	99	97	98	98	100
Extracted ISTD $^{13}C_3$ *PFBS*	%	92	89	96	93	92
Extracted ISTD $^{18}O_2$ *PFHxS*	%	82	84	78	81	81
Extracted ISTD $^{13}C_4$ *PFOS*	%	95	92	99	95	99
Extracted ISTD $^{13}C_4$ *PFBA*	%	90	86	75	80	78

PFAS in Waters Extended						
Our Reference		310103-8	310103-9	310103-10	310103-12	310103-13
Your Reference	UNITS	0902_QC207_221107	0902_QC208_221107	0902_QC209_221107	0902_QC211_221108	0902_QC212_221108
Date Sampled		07/11/2022	07/11/2022	07/11/2022	08/11/2022	08/11/2022
Type of sample		Water	Water	Water	Water	Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	89	85	88	79	88
Extracted ISTD $^{13}C_2$ *PFHxA*	%	93	90	96	87	95
Extracted ISTD $^{13}C_4$ *PFHpA*	%	91	87	85	85	90
Extracted ISTD $^{13}C_4$ *PFOA*	%	88	86	91	83	87
Extracted ISTD $^{13}C_5$ *PFNA*	%	91	91	92	83	91
Extracted ISTD $^{13}C_2$ *PFDA*	%	98	94	95	94	98
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	106	103	100	101	103
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	104	101	101	98	104
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	87	87	88	85	92
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	95	78	94	65	98
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	91	70	85	61	90
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	112	91	99	76	105
Extracted ISTD $^{13}C_8$ *FOSA*	%	100	98	98	96	98
Extracted ISTD d_3 *N MeFOSA*	%	99	98	98	96	98
Extracted ISTD d_5 *N EtFOSA*	%	101	99	102	97	100
Extracted ISTD d_7 *N MeFOSE*	%	92	93	89	90	90
Extracted ISTD d_9 *N EtFOSE*	%	89	90	86	87	88
Extracted ISTD d_3 *N MeFOSAA*	%	100	92	101	78	104
Extracted ISTD d_5 *N EtFOSAA*	%	109	94	100	81	105
Total Positive PFHxS & PFOS	µg/L	0.31	0.04	0.07	3.1	0.61
Total Positive PFOA & PFOS	µg/L	0.18	<0.01	0.04	0.97	0.03
Total Positive PFAS	µg/L	0.55	0.13	0.12	4.2	1.1

PFAS in Waters Extended		
Our Reference		310103-14
Your Reference	UNITS	0902_QC213_221108
Date Sampled		08/11/2022
Type of sample		Water
Date prepared	-	09/11/2022
Date analysed	-	09/11/2022
Perfluorobutanesulfonic acid	µg/L	0.27
Perfluoropentanesulfonic acid	µg/L	0.30
Perfluorohexanesulfonic acid - PFHxS	µg/L	1.9
Perfluoroheptanesulfonic acid	µg/L	0.12
Perfluorooctanesulfonic acid PFOS	µg/L	1.1
Perfluorodecanesulfonic acid	µg/L	<0.02
Perfluorobutanoic acid	µg/L	0.04
Perfluoropentanoic acid	µg/L	0.06
Perfluorohexanoic acid	µg/L	0.27
Perfluoroheptanoic acid	µg/L	0.04
Perfluorooctanoic acid PFOA	µg/L	0.07
Perfluorononanoic acid	µg/L	<0.01
Perfluorodecanoic acid	µg/L	<0.02
Perfluoroundecanoic acid	µg/L	<0.02
Perfluorododecanoic acid	µg/L	<0.05
Perfluorotridecanoic acid	µg/L	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5
4:2 FTS	µg/L	<0.01
6:2 FTS	µg/L	<0.01
8:2 FTS	µg/L	<0.02
10:2 FTS	µg/L	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	97
Surrogate $^{13}C_2$ *PFOA*	%	95
Extracted ISTD $^{13}C_3$ *PFBS*	%	91
Extracted ISTD $^{18}O_2$ *PFHxS*	%	83
Extracted ISTD $^{13}C_4$ *PFOS*	%	94
Extracted ISTD $^{13}C_4$ *PFBA*	%	86

PFAS in Waters Extended		
Our Reference		310103-14
Your Reference	UNITS	0902_QC213_221108
Date Sampled		08/11/2022
Type of sample		Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	88
Extracted ISTD $^{13}C_2$ *PFHxA*	%	92
Extracted ISTD $^{13}C_4$ *PFHpA*	%	86
Extracted ISTD $^{13}C_4$ *PFOA*	%	88
Extracted ISTD $^{13}C_5$ *PFNA*	%	90
Extracted ISTD $^{13}C_2$ *PFDA*	%	98
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	106
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	102
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	87
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	82
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	79
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	91
Extracted ISTD $^{13}C_8$ *FOSA*	%	100
Extracted ISTD d_3 *N MeFOSA*	%	97
Extracted ISTD d_5 *N EtFOSA*	%	99
Extracted ISTD d_7 *N MeFOSE*	%	96
Extracted ISTD d_9 *N EtFOSE*	%	89
Extracted ISTD d_3 *N MeFOSAA*	%	92
Extracted ISTD d_5 *N EtFOSAA*	%	99
Total Positive PFHxS & PFOS	µg/L	3.0
Total Positive PFOA & PFOS	µg/L	1.2
Total Positive PFAS	µg/L	4.2

Miscellaneous Inorganics			
Our Reference		310103-5	310103-12
Your Reference	UNITS	0902_QC204_221107	0902_QC211_221108
Date Sampled		07/11/2022	08/11/2022
Type of sample		Water	Water
Date prepared	-	08/11/2022	08/11/2022
Date analysed	-	08/11/2022	08/11/2022
Ammonia as N in water	mg/L	0.31	0.22
Nitrate as N in water	mg/L	0.23	0.02
Nitrite as N in water	mg/L	0.030	0.006

HM in water - dissolved			
Our Reference		310103-5	310103-12
Your Reference	UNITS	0902_QC204_221107	0902_QC211_221108
Date Sampled		07/11/2022	08/11/2022
Type of sample		Water	Water
Date prepared	-	10/11/2022	10/11/2022
Date analysed	-	10/11/2022	10/11/2022
Aluminium-Dissolved	µg/L	150	10
Bromine-Dissolved	µg/L	790	2,800
Iron-Dissolved	µg/L	1,600	4,100
Manganese-Dissolved	µg/L	1,100	970

Metals in Waters - Acid extractable			
Our Reference		310103-5	310103-12
Your Reference	UNITS	0902_QC204_221107	0902_QC211_221108
Date Sampled		07/11/2022	08/11/2022
Type of sample		Water	Water
Date prepared	-	10/11/2022	10/11/2022
Date analysed	-	10/11/2022	10/11/2022
Phosphorus - Total	mg/L	0.1	0.8

Ion Balance			
Our Reference		310103-5	310103-12
Your Reference	UNITS	0902_QC204_221107	0902_QC211_221108
Date Sampled		07/11/2022	08/11/2022
Type of sample		Water	Water
Date prepared	-	08/11/2022	08/11/2022
Date analysed	-	08/11/2022	08/11/2022
Calcium - Dissolved	mg/L	31	130
Potassium - Dissolved	mg/L	7.8	2
Sodium - Dissolved	mg/L	160	520
Magnesium - Dissolved	mg/L	32	110
Hardness	mgCaCO 3 /L	210	790
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5	<5
Bicarbonate Alkalinity as $CaCO_3$	mg/L	91	500
Carbonate Alkalinity as $CaCO_3$	mg/L	<5	<5
Total Alkalinity as $CaCO_3$	mg/L	91	500
Sulphate, SO4	mg/L	32	41
Chloride, Cl	mg/L	270	890
Ionic Balance	%	5.0	3.0

Method ID	Methodology Summary
Inorg-006	Alkalinity - determined titrimetrically in accordance with APHA latest edition, 2320-B.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-040	The concentrations of the major ions (mg/L) are converted to milliequivalents and summed. The ionic balance should be within +/- 15% ie total anions = total cations +/-15%.
Inorg-055	Nitrate - determined colourimetrically. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a KCl extraction.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Waters samples are filtered on receipt prior to analysis. Alternatively determined by colourimetry/turbidity using Discrete Analyser.
Metals-020	Determination of various metals by ICP-AES.
Metals-022	Determination of various metals by ICP-MS.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-			11/11/2022	[NT]	[NT]	[NT]	[NT]	11/11/2022	[NT]
Date analysed	-			11/11/2022	[NT]	[NT]	[NT]	[NT]	11/11/2022	[NT]
Perfluorobutanesulfonic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluoropentanesulfonic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluoroheptanesulfonic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Perfluorodecanesulfonic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	95	[NT]
Perfluorobutanoic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	99	[NT]
Perfluoropentanoic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	95	[NT]
Perfluorohexanoic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluoroheptanoic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorononanoic acid	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluorodecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluoroundecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluorododecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	98	[NT]
Perfluorotridecanoic acid	µg/kg	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	99	[NT]
4:2 FTS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
6:2 FTS	µg/kg	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
8:2 FTS	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	105	[NT]
10:2 FTS	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
N-Methyl perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/kg	1	Org-029	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	[NT]	[NT]	[NT]	[NT]	108	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	99	[NT]
EtPerfluorooctanesulf amid oacetic acid	µg/kg	0.2	Org-029	<0.2	[NT]	[NT]	[NT]	[NT]	89	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	99	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	96	[NT]

QUALITY CONTROL: PFAS in Soils Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	93	[NT]	[NT]	[NT]	[NT]	90	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	91	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	94	[NT]	[NT]	[NT]	[NT]	90	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	94	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	95	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	92	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	93	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	94	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	91	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	97	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	108	[NT]	[NT]	[NT]	[NT]	110	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	94	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	101	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	93	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	103	[NT]	[NT]	[NT]	[NT]	96	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	94	[NT]

QUALITY CONTROL: PFAS in Soils Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	95	[NT]	[NT]	[NT]	[NT]	93	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	94	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			09/11/2022	1	09/11/2022	09/11/2022		09/11/2022	[NT]
Date analysed	-			09/11/2022	1	09/11/2022	09/11/2022		09/11/2022	[NT]
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	0.09	0.1	11	103	[NT]
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	0.10	0.1	0	115	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	1	0.35	0.34	3	105	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	114	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	1	0.34	0.34	0	103	[NT]
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	87	[NT]
Perfluorobutanoic acid	µg/L	0.02	Org-029	<0.02	1	0.02	0.03	40	103	[NT]
Perfluoropentanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	103	[NT]
Perfluorohexanoic acid	µg/L	0.01	Org-029	<0.01	1	0.06	0.06	0	101	[NT]
Perfluoroheptanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	102	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	94	[NT]
Perfluorononanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	105	[NT]
Perfluorodecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	101	[NT]
Perfluoroundecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	100	[NT]
Perfluorododecanoic acid	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	95	[NT]
Perfluorotridecanoic acid	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	87	[NT]
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	109	[NT]
4:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	106	[NT]
6:2 FTS	µg/L	0.01	Org-029	<0.01	1	0.13	0.14	7	106	[NT]
8:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	99	[NT]
10:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	104	[NT]
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	103	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	105	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	100	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	103	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	110	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	109	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	96	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	100	1	94	93	1	99	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	94	1	99	97	2	95	[NT]

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	102	1	91	94	3	95	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	92	1	78	80	3	86	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	99	1	93	93	0	96	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	98	1	72	73	1	98	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	97	1	81	81	0	97	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	95	1	90	91	1	95	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	97	1	86	86	0	96	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	96	1	87	86	1	93	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	101	1	87	84	4	98	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	104	1	89	91	2	97	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	111	1	99	103	4	109	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	111	1	98	95	3	110	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	98	1	69	82	17	91	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	103	1	65	63	3	98	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	101	1	61	61	0	94	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	114	1	78	75	4	113	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	103	1	96	96	0	97	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	102	1	96	96	0	98	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	102	1	101	99	2	101	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	93	1	91	87	4	95	[NT]

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	96	1	89	86	3	92	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	120	1	78	85	9	109	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	123	1	83	84	1	117	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			08/11/2022	[NT]	[NT]	[NT]	[NT]	08/11/2022	[NT]
Date analysed	-			08/11/2022	[NT]	[NT]	[NT]	[NT]	08/11/2022	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	[NT]	[NT]	[NT]	[NT]	104	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	<0.005	[NT]	[NT]	[NT]	[NT]	107	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	<0.005	[NT]	[NT]	[NT]	[NT]	102	[NT]

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date prepared	-			10/11/2022	[NT]	[NT]	[NT]	[NT]	10/11/2022	[NT]
Date analysed	-			10/11/2022	[NT]	[NT]	[NT]	[NT]	10/11/2022	[NT]
Aluminium-Dissolved	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	102	[NT]
Bromine-Dissolved	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	100	[NT]
Iron-Dissolved	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	120	[NT]
Manganese-Dissolved	µg/L	5	Metals-022	<5	[NT]	[NT]	[NT]	[NT]	117	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			10/11/2022	[NT]	[NT]	[NT]	[NT]	10/11/2022	[NT]
Date analysed	-			10/11/2022	[NT]	[NT]	[NT]	[NT]	10/11/2022	[NT]
Phosphorus - Total	mg/L	0.05	Metals-020	<0.05	[NT]	[NT]	[NT]	[NT]	90	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			08/11/2022	[NT]	[NT]	[NT]	[NT]	08/11/2022	[NT]
Date analysed	-			08/11/2022	[NT]	[NT]	[NT]	[NT]	08/11/2022	[NT]
Calcium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	96	[NT]
Potassium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	95	[NT]
Sodium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	94	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	<0.5	[NT]	[NT]	[NT]	[NT]	101	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	<1	[NT]	[NT]	[NT]	[NT]	91	[NT]
Chloride, Cl	mg/L	1	Inorg-081	<1	[NT]	[NT]	[NT]	[NT]	95	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Total metals: no unfiltered, preserved sample was received, therefore analysis was conducted from the unpreserved sample bottle. Note: there is a possibility some elements may be underestimated.

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	Geoff Tredinnick

Sample Login Details

Your reference	60612562_5.1, NSW_0902_PFASOMP
Envirolab Reference	310103
Date Sample Received	18/11/2022
Date Instructions Received	08/11/2022
Date Results Expected to be Reported	16/11/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	11 Water, 3 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	12
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	PFAS in Soils Extended	PFAS in Waters Extended	Ammonia as N in water	Nitrate as N in water	Nitrite as N in water	HM in water - dissolved	Metals in Waters -Acid extractable	Calcium - Dissolved	Potassium - Dissolved	Sodium - Dissolved	Magnesium - Dissolved	Hardness	Hydroxide Alkalinity (OH-) as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Total Alkalinity as CaCO3	Sulphate, SO4	Chloride, Cl
0902_QC200_221102		✓																
0902_QC201_221102		✓																
0902_QC202_221103	✓																	
0902_QC203_221107		✓																
0902_QC204_221107		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0902_QC205_221107		✓																
0902_QC206_221107	✓																	
0902_QC207_221107		✓																
0902_QC208_221107		✓																
0902_QC209_221107		✓																
0902_QC210_221107	✓																	
0902_QC211_221108		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
0902_QC212_221108		✓																
0902_QC213_221108		✓																

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

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Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt. Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

AECOM

Chain of Custody

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Email reports to: Geoff.Tredinnick@aecom.com; catherine.hansen@aecom.com; derp.labreports@esdat.com.au; mat.jenkins@aecom.com

Laboratory Details
Lab. Name: Envirolab
Lab. Address: 12 Ashley St, Chatswood NSW 2067
Contact Name:
Lab. Ref:
Tel: 0287 848 555
Fax: NA
Preliminary Report by:
Final Report by:
Lab Quote No:

Sampled By: Jessica Roy (0402163223), Jack Rawsthorne, Nicola Tomlin
Project Name: NSW_0902_PFASOMP
AECOM Project #: 60612562_5.1
Purchase Order No:

Specifications: Send ESdat files to DERP.labreports@esdat.com.au and ensure the files use the PROJECT NAME

	Yes (tick)
1. Urgent TAT required? (please circle: 24hr 48hr 5 days)	
2. Fast TAT Guarantee Required?	
3. Is any sediment layer present in waters to be excluded from extractions?	
4. % extraneous material removed from samples to be reported as per NEPM 5.1.1?	
5. Special storage requirements? (details:)	

6. Report Format: ESdat
7. Project Manager: Geoff Tredinnick

Analysis Request

Notes
Major Ions to include: calcium, magnesium, potassium, sodium, chloride, sulphate, bicarbonate, carbonate, flouride.
TaT: Standard Turn Around Time on all samples.

Lab. ID	Sample ID	Sampling Date	Matrix: soil	water	sed	Preservation: filtered	acid	ice	other	Container (No. & type)	PFAS extended Suite (standard LOR)	Nutrients (ammonia, nitrate, nitrite, phosphorous)	Aluminium, bromine, iron, magenese (Field filtered)	Major Cations and Major anions	HOLD	Notes
1	0902-QC200-221102	2/11/22		x				x		3-20mL	x					
2	0902-QC201-221102	2/11/22		x				x		4-20mL	x					extra volume
3	0902-QC202-221103	3/11/22	x		x			x		1-Jar	x					
4	0902-QC203-221107	7/11/22		x				x		3-20mL	x					
5	0902-QC204-221107	7/11/22		x				x		6-bottles	x	x	x	x		short holding time
6	0902-QC205-221107	7/11/22		x				x		3-20mL	x					
7	0902-QC206-221107	7/11/22	x		x			x		1-Jar	x					
8	0902-QC207-221107	7/11/22		x				x		3-20mL	x					
9	0902-QC208-221107	7/11/22		x				x		3-20mL	x					
10	0902-QC209-221107	7/11/22		x				x		3-20mL	x					
11	0902-QC210-221107	7/11/22	x		x			x		1-Jar	x					
12	0902-QC211-221108	8/11/22		x				x		6-bottles	x	x	x	x		short holding time
13	0902-QC212-221108	8/11/22		x				x		4-20mL	x					Extra volume
14	0902-QC213-221108	8/11/22		x				x		4-20mL	x					extra volume

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 310103
Date Received: 8/11/2022
Time Received: 18:00
Received by: HTL
Temp: Cool / Ambient
Cooling: Ice / Icepack
Security: Intact / Broken/None

Comments: Please send ESdat files to DERP.labreports@esdat.com.au and ensure that the files use the PROJECT NAME
Temp. received: °C
Report & invoice: Geoff.Tredinnick@aecom.com
Lab Report No.
Esky ID

Relinquished by:	J. Rawsthorne, N. Tomlin	Signed:	Date: 8.11.22	Relinquished by:	Signed: Date:
Received by:		Signed:	Date:	Received by: TAS HTL	Signed: HTL Date: 8/11/2022

Prepared for
Department of Defence
ABN: 68706814312

Sampling Event Factual Report, May 2023

PFAS OMP - RAAF Base Richmond

03-Aug-2023
Doc No. 20230703_OMP002_Richmond_SamplingEventFactualReport_Rev0

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Sampling Event Factual Report, May 2023

PFAS OMP - RAAF Base Richmond

Client: Department of Defence

ABN: 68706814312

Prepared by

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03-Aug-2023

Job No.: 60612562

AECOM in Australia and New Zealand is certified to ISO9001, ISO14001 and ISO45001.

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Checker/s	
Verifier/s	

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			Name/Position	Signature
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List of Acronyms

Acronym	Term
ADWG	Australian Drinking Water Guidelines
AECOM	AECOM Australia Pty Ltd
AFFF	Aqueous Film Forming Foam
AHD	Australian Height Datum
AIR	Annual Interpretive Report
ASC NEPM	Assessment of Site Contamination National Environment Protection Measure
BOM	Bureau of Meteorology
DCMM	Defence Contamination Management Manual
Defence	Department of Defence
DO	Dissolved Oxygen
DoH	Department of Health
DQI	Data Quality Indicator
DQO	Data Quality Objective
EC	Electrical Conductivity
EPA	Environment Protection Authority
FSANZ	Food Standards Australia New Zealand
HEPA	Heads of Environment Protection Authority
HHERA	Human Health and Ecological Risk Assessment
JBT	Jervis Bay Territory
LOR	Limit of Reporting
MW	Monitoring Well
NATA	National Analytical Testing Authority
NEMP	National Environmental Management Plan
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OMP	Ongoing Monitoring Plan
ORP	Oxidation Reduction Potential
PFAS	Per- and poly-fluoroalkyl substances
PFHxS	Perfluorohexane sulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control

Acronym	Term
RPD	Relative Percentage Difference
SAQP	Sampling and Analysis Quality Plan
SD	Sediment
SW	Surface Water
SWL	Standing Water Level
TOC	Top of Casing
WQM	Water Quality Meter

List of Units

Units	Term
µg/L	Micrograms per Litre
µS/cm	Micro Siemen per centimetre
g	Gram
km	Kilometre
L	Litre
m	Metre
mAHD	Metres Australian Height Datum
mbgl	Metres below ground level
mbTOC	Metres below Top of Casing
Meq/L	Milliequivalent per Litre
mg/kg	Milligrams per kilogram
mg/L	Milligrams per Litre
mV	Millivolts

1.0 Introduction

1.1 General

AECOM Australia Pty Ltd (AECOM) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at the RAAF Base Richmond (the 'Site', Site ID 0902) in the NSW and JBT Region. The location of the Site and Management Area is shown in **Figure F1** in **Appendix A**.

The OMP (Defence, 2019a) outlines the sampling requirements for the Site and off-Site areas within the Management Area.

Following each sampling event, factual sampling event reports will be prepared. Annual interpretive reports will be prepared following the completion of each 12-month sampling period.

This Sampling Event Factual Report has been prepared to report the results of the May 2023 biannual sampling event, specifically highlighting first-time detections and/or new exceedances of human health or ecological screening criteria for the sum of Perfluorooctane sulfonic acid (PFOS) and Perfluorohexane sulfonic acid (PFHxS) (herein referred to as PFOS+PFHxS), PFOS and/or Perfluorooctanoic acid (PFOA).

This report has been prepared in accordance with the Defence *PFAS OMP Factual Report Guidance (Version 0.2)* issued in May 2021 (Defence, 2021).

1.2 Objectives

The objectives were to:

- implement the OMP (Defence, 2019a) prepared as part of the Detailed Environmental Investigations; and
- collect data that will enable Defence to maintain an up to date understanding of the distribution, concentration, transport, and transformation of PFAS.

The data will assist in the timely identification of risks and inform Defence's approach to the management of PFAS, including updates and revisions to the PFAS Management Area Plan (PMAP) (Defence, 2019b).

The objective of this phase of works was to implement the scope of works for the May 2023 biannual sampling event in accordance with the Sampling and Analysis Quality Plan (SAQP) (AECOM, 2023).

2.0 Scope of Work

The scope of works was completed in general accordance with the SAQP (AECOM, 2023), as follows:

- obtain permission (where required) to conduct works at the Site, off-Site publicly accessible areas and at private properties.
- gauging of groundwater levels in monitoring wells prior to collection of samples.
- groundwater sampling and collection of water quality parameters at 81 of 83 scheduled monitoring wells (refer to **Table 1** below and **Figure F2** in **Appendix A** for specific locations), noting that two of the 83 scheduled monitoring wells were also re-sampled and analysed to confirm original results.
- Surface water sampling and collection of water quality parameters at 21 of 23 scheduled surface water locations (refer to **Table 2** below and **Figure F3** in **Appendix A** for specific locations), noting that two of the 23 scheduled surface water locations were also re-sampled as they were paired with the two groundwater locations being re-sampled.
- sediment sampling at 20 of 22 scheduled sediment locations (refer to **Table 3** below and **Figure F4** in **Appendix A** for specific locations).
- collection of field duplicate samples at a rate of 1 in 10 primary samples.
- analysis of all samples for PFAS suite at the standard limit of reporting (LOR).
- data management of the OMP field and laboratory data in Defence ESdat database.
- preparation of this Sampling Event Factual Report.

The deviations from the scheduled scope of works are discussed in detail in **Section 3.0**.

Note: due to privacy considerations, selected monitoring locations are unable to be shown on the figures in **Appendix A**.

Table 1 Groundwater Sampling Locations

Area	Description	Sampling Location	Total
On-Site	West of Site (including Airfield Former Fire Ground/Training Ground)	MW008, MW009, MW010, MW040, MW041	5
	Airfield Foam Cannon Testing Area and Surrounds	MW030, MW053, MW054, MW056, MW057, MW058, MW059, MW107D, MW107I, MW108	10
	Airfield Flight Line (including Fire Station, Building 291)	MW007, MW024, MW025, MW026, MW027*, MW028, MW042, MW043	8
	Site Infrastructure (including Hangar 54)	MW045, MW046, MW060, MW061, MW062, MW063, MW064, MW065, MW066, MW067, MW068, MW069, MW070, MW071	14
	East of Site (including Tanker Parking Area and Former Fuel Farm 1)	MW047, MW048, MW050, MW051, MW052, MW072, MW073, MW074	8
	Sewage Treatment Plant and Surrounds	MW020, MW021, MW022, MW023, MW036, MW109, MW110	7
	Fuel Farm 2	MW032, MW033, MW034	3
	Rickabys Drop Zone	MW001, MW002, MW004, MW005, MW012, MW013, MW014, MW015, MW016, MW017, MW111, MW112, MW113, MW114	14
Off-Site	West of Site	MW075, MW076, MW077, MW078, MW081	5

Area	Description	Sampling Location	Total
	North-west of Site	MW079, MW080, MW082, MW106	4
	North-east of Site	MW143** and MW144**	2
	East of Site	MW086*, MW091, MW092	3
Total			**83**

* Location not sampled
** Location re-sampled to confirm results.

Table 2 Surface Water Sampling Locations

Area	Description	Sampling Location	Total
On-Site	North-west of Site (including STP discharge point)	SW001, SW002, SW003, SW037	4
	North-east of Site (including tributary of Rickabys Creek)	SW005, SW007, SW014	3
	East of Site (including Rickabys Creek)	SW008, SW009, SW011, SW013	4
Off-Site	West of Site	SW022, SW024, SW035	3
	North of Site	SW015**, SW016**, SW081*, **SW085***	4
	East of Site	SW018, SW019, SW023, SW030	4
	South of Site	SW020	1
Total			**23**

* Location not sampled
** Location re-sampled to confirm results
Bold text denotes private property location

Table 3 Sediment Sampling Locations

Area	Description	Sampling Location	Total
On-Site	North-west of Site (including STP discharge point)	SD001, SD002, SD003	3
	North-east of Site (including tributary of Rickabys Creek)	SD005, SD007, SD014	3
	East of Site (including Rickabys Creek)	SD008, SD009, SD011, SD013	4
Off-Site	West of Site	SD022, SD024, SD035	3
	North of Site	SD015, SD016, SD081*, **SD085***	4
	East of Site	SD018, SD019, SD023, SD030	4
	South of Site	SD020	1
Total			**22**

* Location not sampled
Bold text denotes private property location

3.0 Deviations from the SAQP

The May 2023 biannual sampling event was completed in general accordance with the SAQP (AECOM, 2023) with the exception of the deviations outlined in **Table 4** below.

Table 4 Deviations from SAQP (AECOM, 2023)

SAQP Deviation	Comment / Justification	Impact on Dataset
Samples, as well as associated gauging data and water quality parameters, were not collected from 2 of the 83 scheduled groundwater sampling locations.	Groundwater monitoring well MW027 could not be located and could not be gauged and sampled during this event. The well could not be located despite the use of a metal detector which is considered likely to have been destroyed or covered over by the construction works in the area. Groundwater monitoring well MW086 was covered by a soil stockpile from recent road rectification works along Percival Street and could not be gauged and sampled during this event.	The lack of gauging and sampling data for MW027 is not considered to have a significant impact on the dataset, or present a significant data gap, as other nearby monitoring wells (MW026 and MW034) were able to be gauged and sampled during this event. The lack of gauging and sampling data for MW086 is not considered to have a significant impact on the dataset, or present a significant data gap, as another two monitoring wells (MW091 and MW092) further downgradient in the off-Site area were able to be gauged and sampled during this event.
Resampling of 2 of the 83 scheduled groundwater sampling locations.	Groundwater monitoring wells MW143 and MW144 are newly installed wells that were added to the scope ahead of the May 2023 sampling event to replace lost wells MW097 and MW098, along the road verge of Cupitts Lane. The locations were sampled and initial PFAS concentrations were reported to be outside of the historical ranges previously reported for MW097 and MW098. The original samples were reanalysed, and PFAS concentrations were confirmed. Given these locations are key to the understanding of PFAS distribution to the north of the Site, the wells were re-sampled on 9 June 2023, after the completion of the May 2023 sampling event.	The additional sampling data for MW143 and MW144 provides confirmation of the original results, see further details in **Appendix D**. The impact on the dataset and update to the understanding of the Conceptual Site Model will be discussed in the upcoming Interpretive Report.
Samples, as well as associated water quality parameters, were not collected from 2 of the 23 scheduled surface water locations.	Surface water location SW081 was inaccessible, due to the road closure and rectification works associated with a landslip and could not be sampled during this sampling event. Surface water location SW085 was added to the scope ahead of the May 2023 sampling event to target Bakers Lagoon. The proposed	The lack of sampling data for SW081 targeting Bakers Lagoon continues to present a data gap in the understanding of PFAS migration from Bakers Lagoon to the Hawkesbury River. The new location, SW085 will be sampled during future sampling events if there is significant rain for

SAQP Deviation	Comment / Justification	Impact on Dataset
	location was observed to be dry and therefore not sampled. AECOM considers that the new location accessed (SW085) appeared to be dry during prolonged dry periods and therefore there is no connectivity with Bakers Lagoon during these dry periods.	the waterbody to be connected with Bakers Lagoon.
Resampling of 2 of the 23 scheduled surface water sampling locations.	Surface water locations SW015 and SW016 are located in the vicinity of the newly installed groundwater monitoring wells (MW143 and MW144), along the road verge of Cupitts Lane. The locations were re-sampled together with MW143 and MW144 on 9 June 2023, following receipt of results for MW143/ MW144 (for the May 2023 sampling event).	The additional sampling data for SW015 and SW016 provides the data to enable comparison of surface water and groundwater in this area. See further details in **Appendix D**.
Samples, as well as associated field data, were not collected from 2 of the 22 scheduled sediment locations.	Sediment location SD081 was inaccessible, due to the road closure and rectification works associated with a recent landslip and could not be sampled during this sampling event. Sediment location SD085 was added to the scope ahead of the May 2023 sampling event to target Bakers Lagoon. The proposed location was observed to be dry and not sampled. AECOM considers that the new paired surface water and sediment locations access (SW085 / SD085) appeared to be dry during prolonged dry periods and therefore there is no connectivity with Bakers Lagoon during these dry periods.	The lack of sampling data for SD081 continues to present a data gap in the understanding of PFAS migration from Bakers Lagoon to the Hawkesbury River. At the time new location SD085 was visited, there appeared to be no connectivity between this location and Bakers Lagoon. AECOM will attempt to collect a sample from this location during future sampling events if there is significant rain for the waterbody to be connected with Bakers Lagoon. The lack of connectivity between Bakers Lagoon and new sampling location SD085 (at the time the event was undertaken) presents a data gap for PFAS concentrations in Bakers Lagoon.

4.0 Methodology

4.1 Sampling Methodology

The methodology used for the May 2023 biannual sampling event was in general accordance with the SAQP (AECOM, 2023) and is summarised in **Table 5** below.

Table 5 Sampling Methodology

Item	Details
Groundwater gauging	The depth to groundwater was measured in each monitoring well immediately prior to collection of groundwater samples using an interface probe. Measurements of depth to groundwater were undertaken using an interface probe, which was tested by the supplier to ensure the instrument was fully operational prior to despatch and use. The equipment supplier records are provided in **Appendix C**.
Water quality parameters	Temperature, electrical conductivity (EC), dissolved oxygen (DO), oxidation-reduction potential (ORP), pH and observations of water quality were recorded for groundwater and surface water samples. Water quality parameters were collected using a calibrated water quality meter (WQM). The equipment supplier and field calibration records are provided in **Appendix C**.
Sampling methodology	**Groundwater Monitoring Wells** Groundwater samples were collected from each monitoring well using HydraSleeves™, a no-purge sampling methodology. HydraSleeves™ were installed within the screened interval of the wells for a minimum of 4 hours prior to the collection of samples, based on a review of the well construction log. For this event, all the HydraSleeves™ were installed during the previous sampling event in November 2022 as well as this sampling event in May 2023. HydraSleeves™ were not found in the following monitoring wells, as they were removed during previous sampling events by Defence's Regional Water Quality Monitoring Program (RWQMP) contractor: MW005, MW007, MW008, MW009, MW010, MW012, MW020, MW032, MW033, MW041, MW043, MW047, MW048, MW050, MW051, MW052, MW053, MW054, MW056, MW057, MW058, MW059, MW060, MW061, MW072, MW073, MW078, MW107I and MW143. At these locations AECOM installed HydraSleeves™ and returned after a minimum of 4 hours to collect the groundwater samples. Once sampling was completed, new HydraSleeves™ were deployed in each of the monitoring wells, within the screened interval depth in preparation for the next sampling round. **Surface Water** Surface water samples were collected from either mid-way through the water column or approximately 0.5 metres below the surface, without disturbing the bottom of the surface water body, and without capturing any surface film or floating materials in the samples. At each location, a new, laboratory supplied container was lowered into the water (either by hand or using a sampling pole) with the cap immediately applied once the container was full. **Sediment**

Item	Details
	Sediment samples representative of potentially deposited sediments were collected from within the water body, using a hand trowel to a maximum depth of 0.3 metres below ground level (mbgl). A new laboratory supplied container was used at each location for collection of samples.
QA/QC Samples	A QA/QC program was implemented for the sampling and analysis program in order to obtain representative data and assess the reliability of the data obtained. To facilitate the QA/QC program the following sample types were obtained during the sampling program: • *Intra-laboratory duplicates* collected at a rate of 1 in 10 primary samples. The relative percentage difference (RPD) should be less than 30%, or less than 50% if results are less than 20 times the limit of reporting (LOR). Higher RPDs may also be acceptable if results are less than 10 times the LOR. • *Inter-laboratory duplicates* collected at a rate of 1 in 10 primary samples. The RPD should be less than 30%, or less than 50% if results are less than 20 times the LOR. Higher RPDs may also be acceptable if results are less than 10 times the LOR • *Rinsate blanks* collected at a frequency of one per set of sampling equipment per day where equipment was reused between locations. Analytical results should be below the laboratory LOR. For this May 2023 biannual sampling event, the QA/QC samples included: • 14 x intra-laboratory duplicates (8 groundwater, 3 surface water and 3 sediment) which met the target frequency. • 14 x inter-laboratory duplicates (8 groundwater, 3 surface water and 3 sediment) which met the target frequency. • 7 x rinsate blanks, which met the target frequency. The data validation assessment is presented in **Appendix D**.
Sample analysis	All samples were submitted to the primary and secondary laboratories for PFAS suite at the standard LOR. ALS Environmental (ALS) Sydney, NSW was used as the primary laboratory. Envirolab Services (Envirolab) Sydney, NSW was used as the secondary laboratory. ALS and Envirolab methods for analyses were certified by the National Association of Testing Authorities (NATA). A summary of the laboratory results is presented in **Section 5.0** and the laboratory certificates are presented in **Appendix E**.

4.2 Adopted Screening Criteria

Guidance documents used to assess the dataset include the following:

- Heads of EPAs Australia and New Zealand (HEPA), 2020. *PFAS National Environmental Management Plan 2.0*. January 2020.
- Department of Health (DoH), 2017. *Health Based Guidance Values for PFAS for use in site investigations in Australia*. April 2017.
- Food Standards Australia New Zealand (FSANZ), 2017. *Supporting Document 1: Hazard assessment report – Perfluorooctane Sulfonate (PFOS), Perfluorooctanoic Acid (PFOA), Perfluorohexane Sulfonate (PFHxS).*
- National Health and Medical Research Council (NHMRC), 2019. *Guidance on PFAS in Recreational Water.* August 2019.
- National Environment Protection Council (NEPC), 2013. *Schedule B1. National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) Schedule B1 Guideline on Investigation Levels For Soil and Groundwater.*

The adopted PFAS screening criteria to assess the data generated as part of the OMP are presented in **Table 6** below.

It is noted that, at the time of preparing this report, the PFAS NEMP (HEPA, 2020) did not provide any screening criteria for PFAS in sediments.

Table 6 Summary of Adopted Screening Criteria

Media	Pathway	Compound	Criteria	Comment/Reference
Human Health Receptors				
Water – Groundwater	Drinking water	PFOS + PFHxS	0.07 µg/L	The values presented in the PFAS NEMP, 2020 are from DoH 2017, which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH utilised the Tolerable Daily Intake (TDI) for PFOS and PFOA from FSANZ, 2017 and the methodology described in Chapter 6.3.3 of the National Health and Medical Research Council's (NHMRC) Australian Drinking Water Guidelines (ADWG), 2011 (updated in January 2022) to determine drinking water values. For PFHxS, DoH 2017 noted that '*FSANZ concluded that there was not enough toxicological and epidemiological information to justify establishing a tolerable daily intake. However, as a precaution, and for the purposes of site investigations, the PFOS tolerable daily intake should apply to PFHxS. In practice, this means that the level of PFHxS exposure should be added to the level of PFOS exposure; and this combined level be compared to the tolerable daily intake for PFOS*'. *All groundwater results were compared to these criteria.*
		PFOA	0.56 µg/L	

Media	Pathway	Compound	Criteria	Comment/Reference
Water – Surface Water	Recreational use	PFOS + PFHxS	2 µg/L	In August 2019, NHMRC released guidance on the assessment of PFAS in surface water. Rather than adopting an ingestion rate of 0.2 L of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year. These values were adopted in the PFAS NEMP, 2020. *All surface water results were compared to these criteria.*
		PFOA	10 µg/L	
Ecological Receptors				
Water – Groundwater and Surface Water	Freshwater	PFOS	0.00023 µg/L	The values are from the PFAS NEMP, 2020 which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality. The 99% species protection level (for freshwater and interim marine) has been applied for high value conservation systems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. It is proposed that the laboratory LOR is adopted for the purposes of preliminary screening of analytical water results, rather than sole use of the criteria value. *All groundwater and surface water results were compared to these criteria.*
		PFOA	19 µg/L	

4.3 Data Quality Objectives and Data Validation

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2023). Data validation assessment is provided in **Appendix D**.

Data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

Following the reporting of PFAS concentrations which were first-time detections and new exceedances at MW143 and MW144 (samples collected on 10 May 2023), the primary laboratory was requested to repeat the analysis which confirmed the originally reported concentrations.

Additionally, MW143 and MW144, were resampled on 9 June 2023 to confirm the results for samples collected on 10 May 2023. Given that these monitoring wells have paired surface water locations (SW015 and SW016), the surface water locations were also resampled and analysed for comparison purposes.

The new results for MW143 and MW144 confirmed the reported concentrations (and re-analysis) for samples collected on 10 May 2023. The results for SW015 and SW016 were within the historical ranges.

All data collected during this event has been reviewed and uploaded to the Defence ESdat database in accordance with Defence Contamination Management Manual (DCMM) requirements.

5.0 Field Observations and Results

5.1 General Observations

The weather conditions and general observations (including activities that may impact the monitoring program) recorded during the May 2023 biannual sampling event completed between 8 and 15 May 2023, with re-sampling of selected locations completed on 9 June 2023, are summarised in **Table 7** below.

Table 7 General Observations

Items	Observations
Weather Conditions	During the sampling event and subsequent resampling, the weather was observed to be mostly dry and cool, with maximum daily temperatures between 18.1 ˚C (8 May 2023) and 22.9 ˚C (12 May 2023). A cumulative 3.6 mm of rainfall was recorded at Richmond (Richmond RAAF, Station 067105) (Bureau of Meteorology, 2023) during the sampling event, with most of the rainfall recorded on 8 May 2023.
Estate Management Works, Training Activities and/or Construction Works.	Various road rectification and construction works being carried out by Hawkesbury Council were ongoing during the May 2023 sampling event, including along Percival Street and Cornwallis Road, and in some cases prevented access to sampling locations. Construction works being carried out by Duratec Australia to update the aircraft underground fuel lines had disrupted the area surrounding MW027, which was unable to be located. No training activities were observed during the May 2023 sampling event, that would impact the sampling program.

5.2 Field Observations and Measurements

The observations and measurements recorded during the field activities for the May 2023 biannual sampling event are summarised in **Table 8**, below.

Table 8 Field Observations and Measurements

Item	Description
Monitoring Well Network Condition	The wells sampled were observed to be in good condition with the exception of the following: • MW012 and MW022 have damaged monuments with PVC slightly bent at ground level. Given the integrity of the wells has not been compromised and the wells were able to be sampled, no further action is required. MW012 also has a partial blockage at 2 metres below top of casing (mbTOC) which prevented the Hydrasleeve ™ being installed beyond that depth (yet it was installed within the top part of the screen). • MW026, MW061 and MW144 had well gatics full of water above top of casing. The water was removed prior to sampling at the location. • MW027 and MW086 were unable to be assessed as the wells were not able to be located.
Water Observations	Biosheen was noted on water surface at four surface water locations (SW007, SW008, SW014 and SW015). No odours were noted at groundwater or surface water locations.

Item	Description
Depth to Groundwater and Flow Direction	Depth to groundwater ranged from 0.264 (MW081) and 17.252 (MW054) mbTOC. Groundwater elevation ranged between -0.054 (MW072, likely due to incorrect TOC elevation) and 15.449 (MW071) metres Australian Height Datum (mAHD). Groundwater gauging data is presented in **Table T1** in **Appendix B**. The inferred groundwater flow direction for the regional shallow (unconfined) aquifer is to the east and northeast towards the Hawkesbury River (refer to **Figure F5** in **Appendix A**), which was generally consistent with previous flow directions. Note that gauging data from a number of groundwater monitoring wells were omitted from the contour plan, due to the following: • MW070 and MW071: installed with screens targeting the underlying lower aquifer • MW072: due to inconsistencies identified in historical TOC elevation that may potentially impact elevation readings. AECOM considers that the TOC elevation for MW072 may be incorrect (unable to be confirmed from borelogs or historical reports) and requires re-surveying.
Water Quality Parameters	Groundwater and surface water quality parameters were measured during the collection of water samples. The readings are presented in **Table T2** and **Table T3** in **Appendix B** and are summarised below: **Groundwater Quality Parameters** • Dissolved oxygen ranged from 0.04 mg/L (MW143) to 4.31 mg/L (MW071) indicating poorly to moderately oxygenated conditions. • Electrical conductivity ranged from 100.7 µS/cm (MW071) to 9627 µS/cm (MW062) indicating fresh to saline conditions. • pH ranged from 5.71 (MW056) to 7.71 (MW016) indicating moderately acidic to neutral conditions. • Redox ranged from 86.9 mV (MW053) to 339.1 mV (MW024) indicating moderately reducing to oxidising conditions. **Surface Water Quality Parameters** • Dissolved oxygen ranged from 0.63 mg/L (SW005) to 10.15 mg/L (SW011) indicating poor to well oxygenated conditions. • Electrical conductivity ranged from 77.4 µS/cm (SW011) to 1,211 µS/cm (SW015) indicating fresh to brackish conditions. • pH ranged from 6.15 (SW001, SW016) to 8.65 (SW011) indicating near neutral to moderately alkaline conditions. • Redox ranged from 37.6 mV (SW016) to 325.2 mV (SW030) indicating moderately reducing to oxidising conditions.
Sediment Observations	Sediment sampled and logged during this monitoring event comprised mostly of silt and clay, as well as some sand and gravel materials with varying amounts of organic material (mostly roots). No anthropogenic inclusions or staining were observed. No odours were noted in the samples from sediment locations. Refer to in **Table T4** in **Appendix B** for a summary of sediment classifications and observations.

5.3 Summary of Analytical Results

5.3.1 Groundwater Analytical Results

The PFAS groundwater analytical results from this sampling event are presented in **Table T5** in **Appendix B**. In summary, 81 primary groundwater samples were analysed for PFAS compounds, with concentrations of:

- PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 72 primary samples.
- PFOS+PFHxS and/or PFOA exceeded the adopted human health screening criteria in 61 primary samples.
- PFOS and/or PFOA exceeded the adopted ecological screening criteria in 62 primary samples.

Deviations from the historical dataset are reported in **Table 9** and graphically on **Figure F6** in **Appendix A**.

Table 9 Deviations from Historical Dataset: Groundwater

Deviation Type	Groundwater sampling location	PFOS+PFHxS (µg/L)		PFOA (µg/L)		PFOS (µg/L)	
		May 2023	Previous maximum	May 2023	Previous maximum	May 2023	Previous maximum
First-time detections of PFOS+PFHxS PFOS and/or PFOA in groundwater	MW143 (new well)	0.90	n/a	0.01	n/a	0.76	n/a
	MW144 (new well)	0.09	n/a	<LOR	n/a	0.01	n/a
New exceedance of the NEMP (HEPA, 2020) drinking water guidelines in groundwater	MW143 (new well)	0.90	n/a	There were no new exceedances of the NEMP Human Health Screening Criteria in the dataset.		There are no applicable NEMP Human Health Screening Criteria.	
	MW144 (new well)	0.09	n/a	There were no new exceedances of the NEMP Human Health Screening Criteria in the dataset.		There are no applicable NEMP Human Health Screening Criteria.	
New exceedance of the NEMP (HEPA, 2020) Freshwater 99% guidelines in groundwater	MW143 (new well)	There are no applicable NEMP Ecological Screening Criteria (99%).		There were no new exceedances of the NEMP Ecological Screening Criteria in the dataset (99%).		0.76	n/a
	MW144 (new well)	There are no applicable NEMP Ecological Screening Criteria (99%).		There were no new exceedances of the NEMP Ecological Screening Criteria in the dataset (99%).		0.01	n/a
Legend							
Blue Shading	Blue shading indicates sampling location with first-time detection of PFOS+PFHxS, PFOS and/or PFOA						
Yellow Shading	Yellow shading indicates sampling location with new exceedance of NEMP Human Health and/or Ecological Screening Criteria						
N/A	Not applicable – no historical data available.						
Note: MW143 (new well) first-time detections and new exceedances were recorded in the primary, intra-laboratory and inter-laboratory samples, as well as the resampling completed on 9 June 2023 with the highest reported concentrations displayed. n/a = not applicable. MW143 and MW144 are new wells and sampled for the first time.							

5.3.2 Surface Water Analytical Results

The PFAS surface water analytical results from this sampling event are presented in **Table T6** in **Appendix B**. In summary, 21 primary surface water samples were analysed for PFAS compounds, with concentrations of:

- PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 19 primary samples.
- PFOS+PFHxS and/or PFOA exceeded the adopted human health screening criteria in 4 primary samples.
- PFOS and/or PFOA exceeded the adopted ecological screening criteria in 19 primary samples.

There were no first-time detections, or new exceedances of the adopted human health or ecological screening criteria for PFOS+PFHxS, PFOS and/or PFOA, in the surface water samples analysed.

5.3.3 Sediment Analytical Results

The PFAS sediment analytical results from this sampling event are presented in **Table T7** in **Appendix B**. In summary, 20 primary sediment samples were analysed for PFAS compounds, with concentrations of PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 18 primary samples.

There were no first-time detections for PFOS+PFHxS, PFOS and/or PFOA, in the sediment samples analysed.

5.4 Historical Sampling Data

Historical groundwater, surface water and sediment sampling data are presented in **Tables T8**, **T9** and **T10** (respectively) in **Appendix B**.

6.0 Summary and Next Sampling Events

6.1 Summary of Monitoring Event

The May 2023 biannual sampling event was completed between 8 and 15 May 2023, with re-sampling of selected locations on 9 June 2023. The findings and the recommended actions are summarised in **Table 10** below.

Table 10 Summary of Sampling Event

Item	Comment	Recommended Action
Access to sampling locations	The following were accessed and able to be sampled: • 81 groundwater locations • 21 surface water locations • 20 sediment locations	Nil.
Locations unable to be located, inaccessible or dry	One monitoring well (MW027) was unable to be located due to construction works in the area, the well may have been covered or destroyed. One monitoring well (MW086) was inaccessible due to the placement of a soil stockpile over the well. Access road to one co-located surface water / sediment location (SW081 / SD081) was closed for rectification works following a recent landslide. One co-located surface water / sediment location (SW085 / SD085) was dry and therefore not sampled. AECOM considers that the new location accessed appeared to be dry during prolonged dry periods and therefore there is no connectivity with Bakers Lagoon during these dry periods.	AECOM will attempt to access and sample locations MW027, MW086 and SW081 / SD081 during the next scheduled sampling event. AECOM will attempt to collect samples from new surface water / sediment locations SW085 / SD085 during future sampling events if there is observed connectivity to Bakers Lagoon following significant rainfall.
Monitoring well network condition	All monitoring wells that were able to be accessed were noted to be in good condition. It is noted that although MW012 and MW022 had damaged monuments, the well integrity had not been compromised and the wells were able to be sampled. MW012 was also observed to have a partial blockage at 2 mbTOC. Additionally, some wells had water in the well gatic, with the water either above or below TOC, these were cleared prior to sampling. Based on a review of gauging data, monitoring well MW072 appears to have incorrect TOC elevation, which was unable to be confirmed from borelogs or historical reports.	AECOM proposes to investigate the partial blockage at MW012 during the next scheduled sampling event. AECOM proposes to re-survey MW072 ahead of the next sampling event.

Item	Comment	Recommended Action
Analytical Results	81 groundwater primary samples (plus another 2 from resampling event), 21 surface water primary samples (plus another 2 from resampling event) and 20 sediment primary samples were analysed.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
First-time detections of PFOS+PFHxS, PFOS and/or PFOA	Two monitoring wells (MW143 and MW144) of 81 sampled reported first-time detections of PFOS+PFHxS, PFOS and/or PFOA. Note that these are new wells and sampled for the first time. No surface water locations sampled reported first-time detections of PFOS+PFHxS, PFOS and/or PFOA. No sediment locations sampled reported first-time detections of PFOS+PFHxS, PFOS and/or PFOA.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
New exceedance of adopted human health screening criteria	Two monitoring wells (MW143 and MW144) of the 81 sampled reported new exceedances of the adopted human health screening criteria for PFOS+PFHxS and/or PFOA. Note that these are new wells and sampled for the first time. No surface water locations sampled reported new exceedances of the adopted human health screening criteria for PFOS+PFHxS and/or PFOA.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
New exceedance of adopted ecological screening criteria	Two monitoring wells (MW143 and MW144) of the 81 sampled reported new exceedances of the adopted ecological screening criteria for PFOS and/or PFOA. Note that these are new wells and sampled for the first time. No surface water locations sampled reported new exceedances of the adopted ecological screening criteria for PFOS and/or PFOA.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.

6.2 Upcoming Sampling Events

The next OMP sampling event is scheduled for November 2023.

6.3 Upcoming Annual Interpretive Report

The next annual interpretive report is scheduled to be delivered in Q3 2023.

7.0 References

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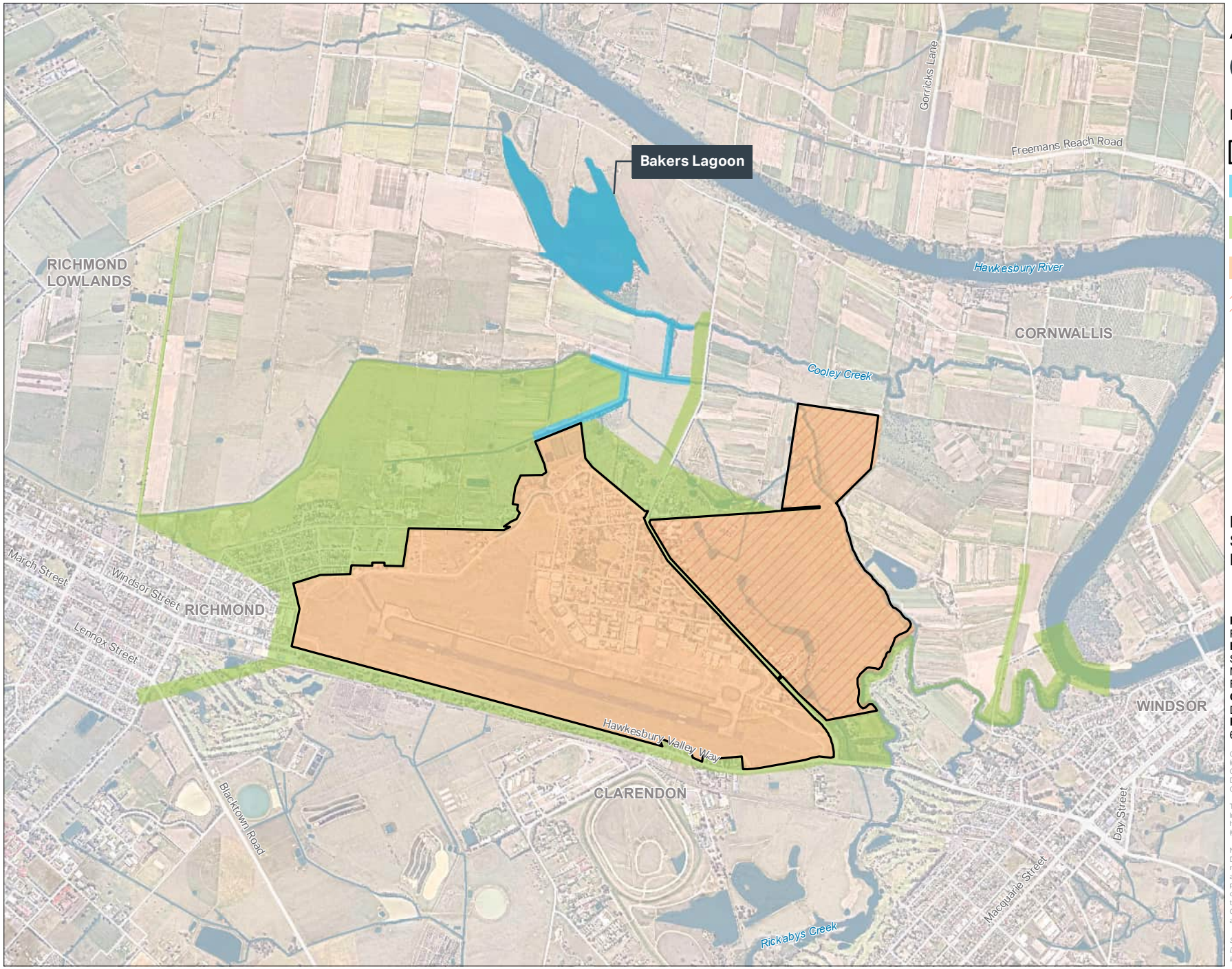
Appendix A

Figures



AECOM

N

0 300 600 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone

FIGURE F1:
SITE LOCATION AND MANAGEMENT AREAS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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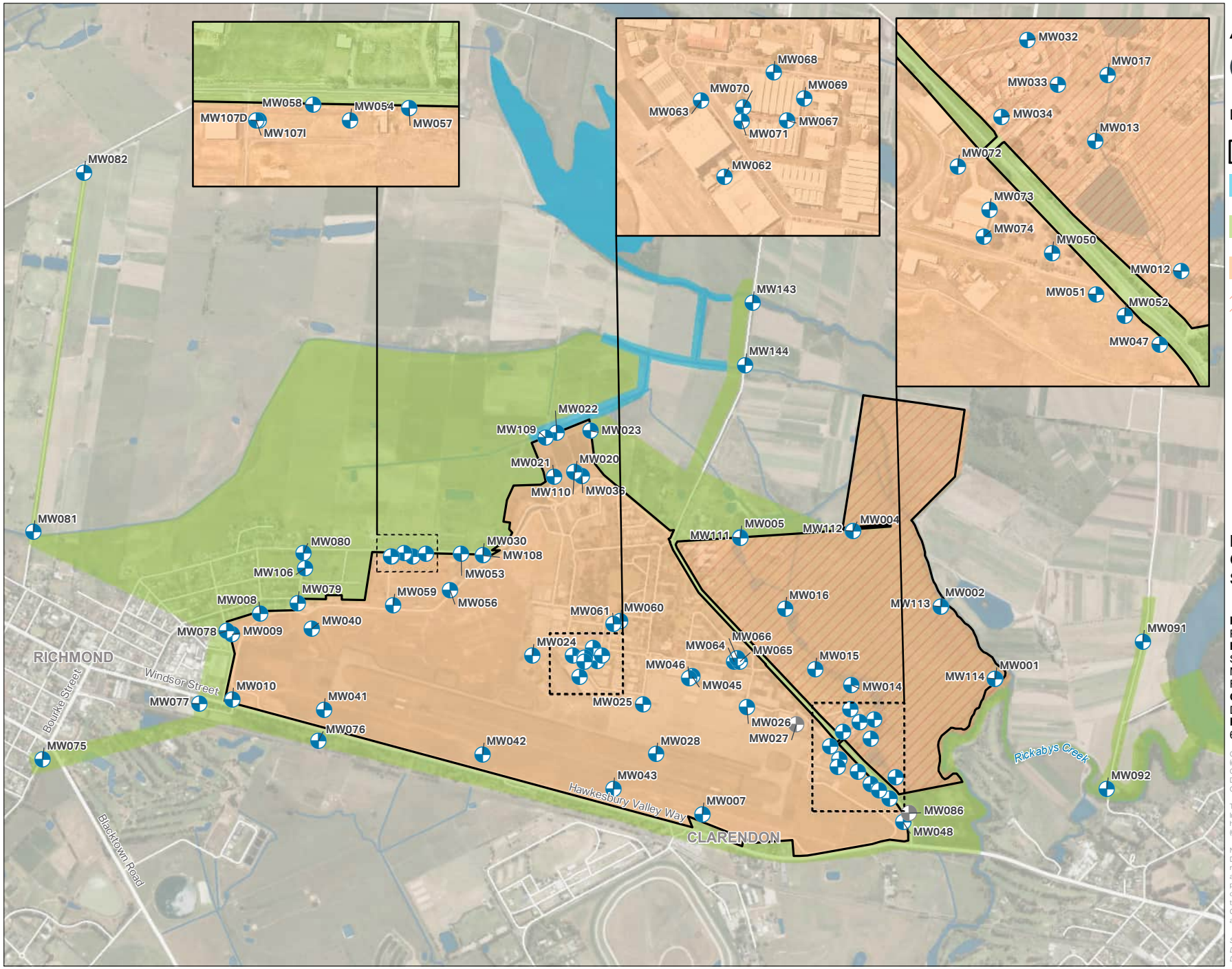

AECOM

N

0 200 400 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Location (sampled)
- Groundwater Location (not sampled)

FIGURE F2:
GROUNDWATER SAMPLING LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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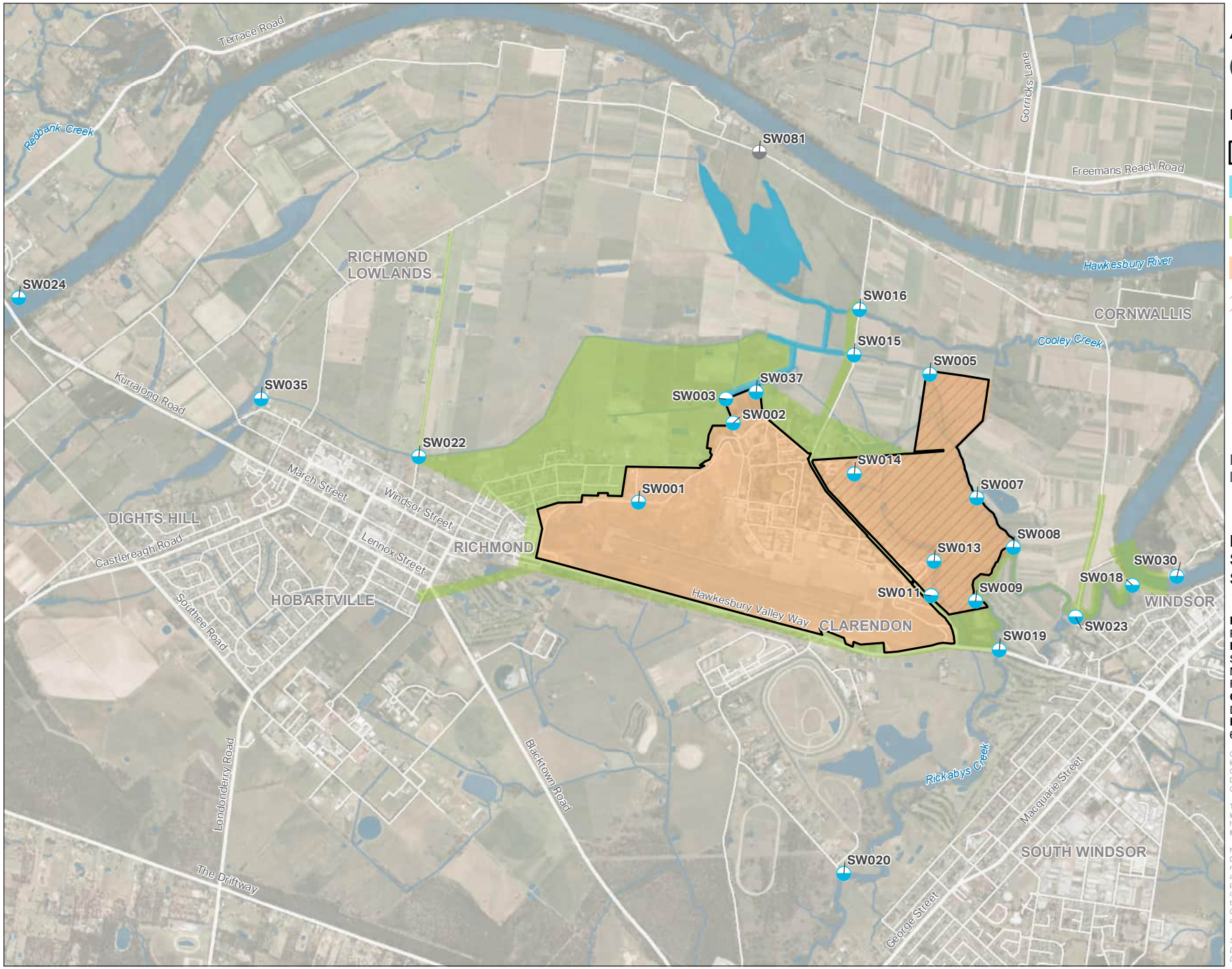

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Surface Water Location (sampled)
- Surface Water Location (not sampled)

Due to privacy considerations, location SW085 cannot be shown

FIGURE F3:
SURFACE WATER SAMPLING LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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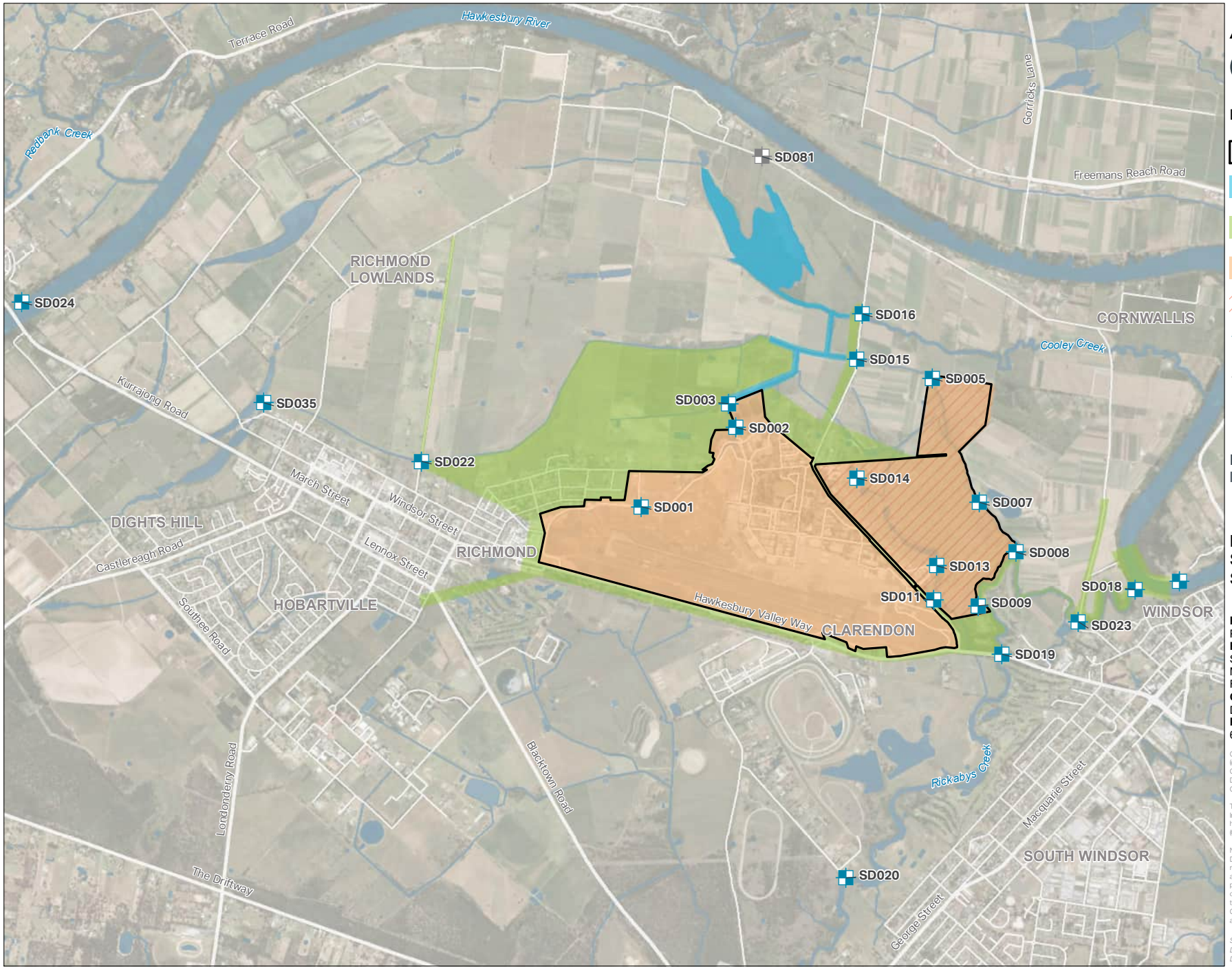

AECOM

N

0 400 800 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Sediment Location (sampled)
- Sediment Location (not sampled)

Due to privacy considerations, location SD085 cannot be shown

FIGURE F4:
SEDIMENT SAMPLING LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
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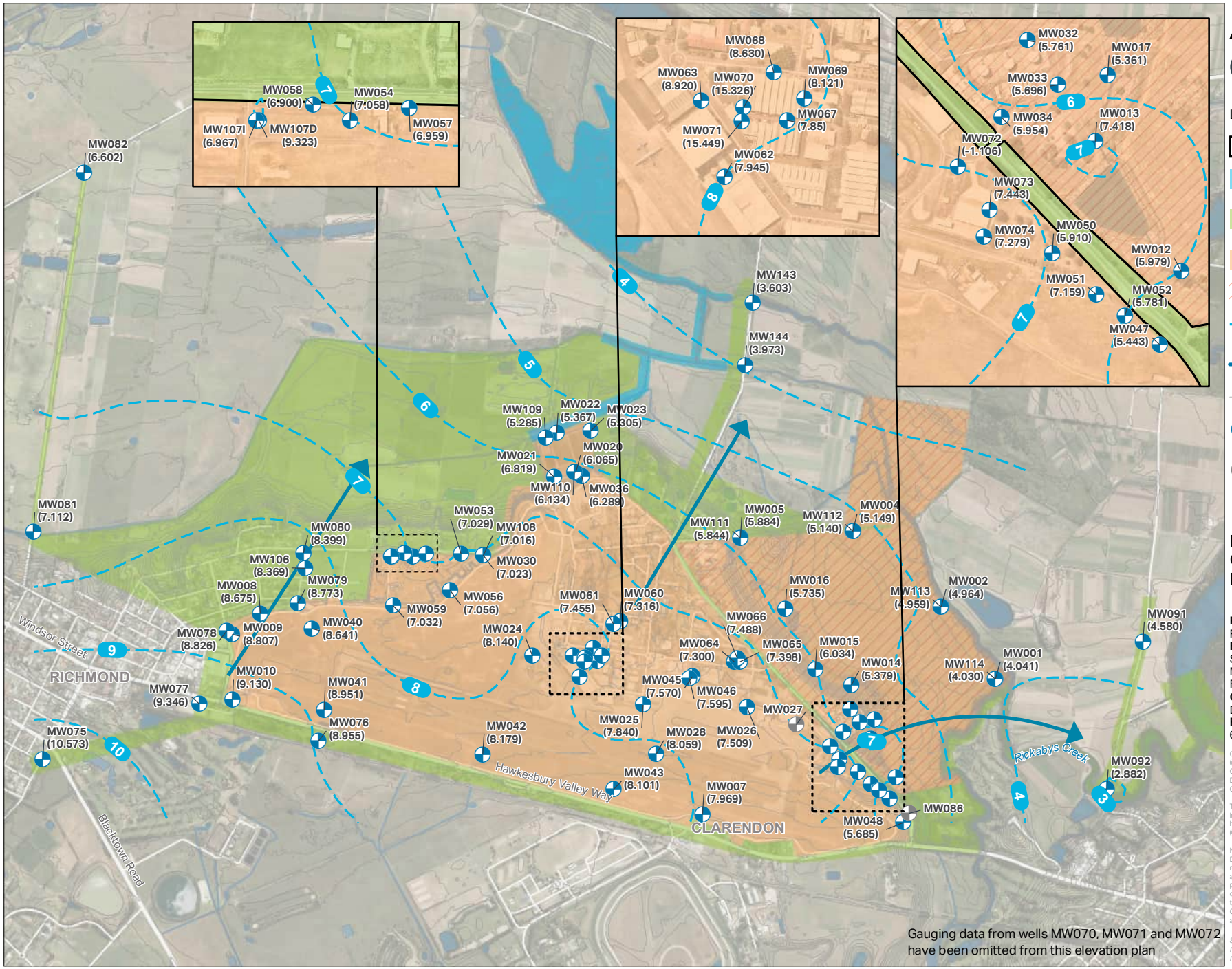

AECOM

N

0 200 400 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- Groundwater Contours (mAHD)
- Inferred Groundwater Flow Direction
- 1m Contour
- Groundwater Location (gauged)
- Groundwater Location (not gauged)

FIGURE F5:
GROUNDWATER ELEVATION PLAN

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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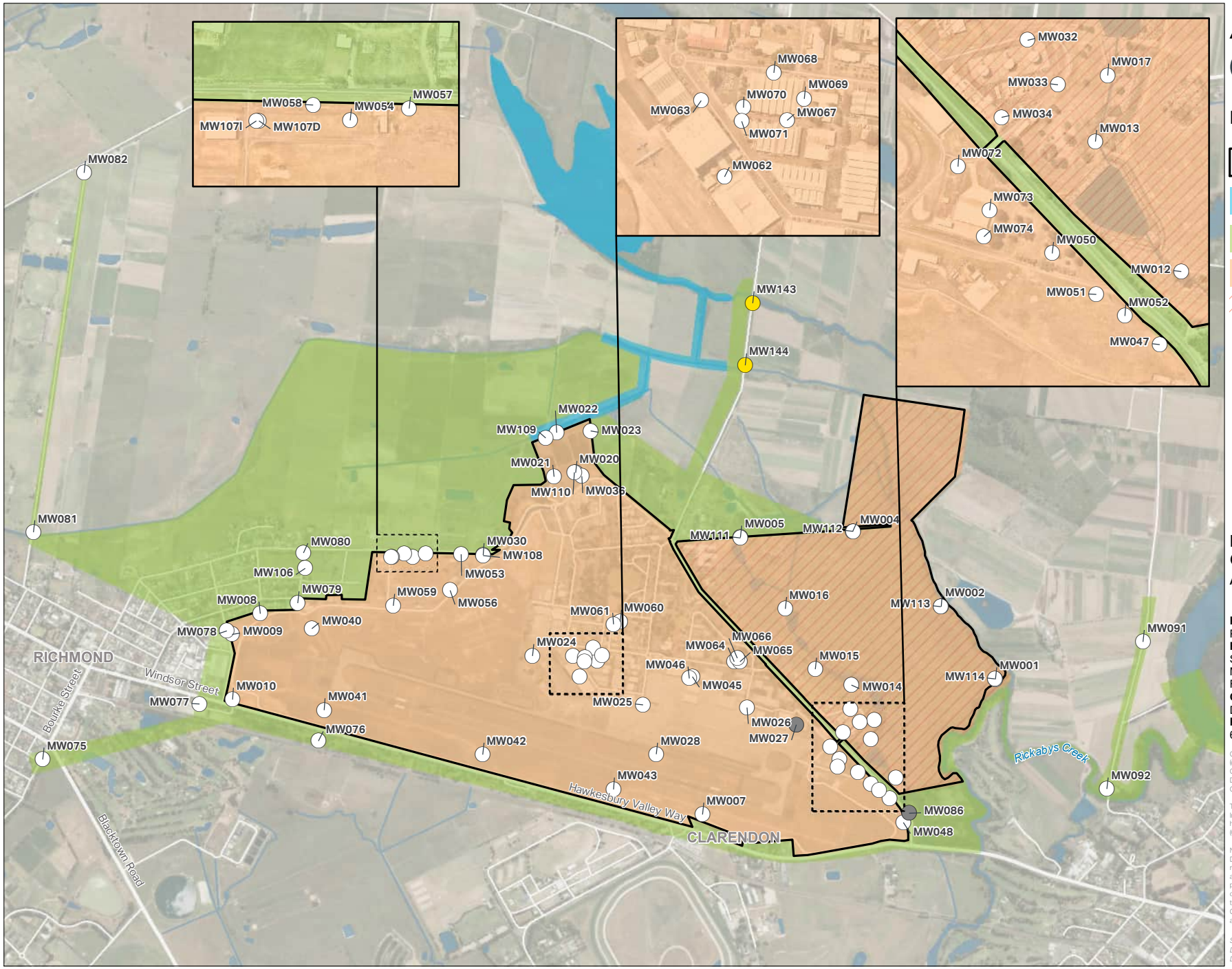

AECOM

N

0 200 400 m

Legend

- Defence Site Boundary
- Bakers Lagoon Management Area
- Offsite Management Area
- Onsite Management Area
- Rickabys Drop Zone
- New Exceedence of Human Health and/or Ecological Screening Criteria for PFOS, PFOS+PFHxS and/or PFOA
- Location not accessed and/or sampled
- Sampled, no first time detection or exceedance

FIGURE F6:
GROUNDWATER ANALYTICAL RESULTS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
May 2023
RAAF Base Richmond (0902)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

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Appendix B

Tables

Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	HydraSleeve Collar Depth (mbTOC)	Visit / Gauging Date Time	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit / Gauging Comment
MW001	BBNA-NAA-MW01, MW01	10.052	6	9	7.5	11/05/2023 14:42	6.011	4.041	9.39	Good condition.
MW002	BBNA-NAA-MW02A, MW02	9.860	6	9	8.0	11/05/2023 11:17	4.896	4.964	9.76	Good condition.
MW004	BBNA-NAA-MW03, MW04	7.180	9	12	11.0	11/05/2023 10:30	2.031	5.149	13.50	Good condition.
MW005	BBNA-BH24/5, MW05	9.113	unknown	unknown	n/a	11/05/2023 10:20	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW005	BBNA-BH24/5, MW05	9.113	unknown	unknown	8.0	11/05/2023 14:15	3.229	5.884	9.90	Good condition.
MW007	BBRS-NAA-MW01, MW07	16.030	9	12	n/a	12/05/2023 11:00	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW007	BBRS-NAA-MW01, MW07	16.030	9	12	9.5	15/05/2023 12:32	8.061	7.969	11.71	Good condition.
MW008	BBRW-NAA-MW01, MW08	20.930	12	15	n/a	12/05/2023 6:45	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW008	BBRW-NAA-MW01, MW08	20.930	12	15	14.0	12/05/2023 11:32	12.255	8.675	16.09	Good condition.
MW009	BBRW-BHB5, MW09	20.440	unknown	unknown	n/a	12/05/2023 6:50	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW009	BBRW-BHB5, MW09	20.440	unknown	unknown	11.0	12/05/2023 11:43	11.633	8.807	13.11	Good condition.
MW010	BBA-NAA-MW01, MW10	21.060	18	21	n/a	12/05/2023 6:55	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW010	BBA-NAA-MW01, MW10	21.060	18	21	19.5	12/05/2023 11:55	11.930	9.130	21.77	Good condition.
MW012	SW0257-NAA-MW01, MW12	6.640	1	4	n/a	11/05/2023 12:10	n/a	n/a	n/a	Monument slightly bent at ground level. Partial blockage at 2 m. No Hydrasleeve found. Hydrasleeve installed for sampling this round (cannot be deployed beyond 2 m due to partial blockage).
MW012	SW0257-NAA-MW01, MW12	6.640	1	4	1.0	11/05/2023 16:02	0.661	5.979	4.22	Monument slightly bent at ground level. Partial blockage at 2 m.
MW013	SW0257-NAA-MW02, MW13	7.930	4	7	5.0	11/05/2023 12:25	0.512	7.418	6.06	Good condition.
MW014	SW0257-NAA-MW03, MW14	6.240	5	8	7.0	11/05/2023 13:03	0.861	5.379	9.42	Good condition.
MW015	SW0257-NAA-MW04, MW15	7.020	6	9	7.0	11/05/2023 13:11	0.986	6.034	8.98	Good condition.
MW016	SW0257-NAA-MW05, MW16	7.390	2	5	4.0	11/05/2023 9:54	1.655	5.735	5.99	Good condition.
MW017	SW0257-BHFF8, MW17	6.510	unknown	unknown	3.0	11/05/2023 12:48	1.149	5.361	4.89	Good condition.
MW020	SW0057-STP2, MW20	8.945	unknown	unknown	n/a	8/05/2023 11:25	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW020	SW0057-STP2, MW20	8.945	unknown	unknown	4.5	8/05/2023 16:10	2.880	6.065	6.53	Good condition.
MW021	SW0057-STP3, MW21	7.880	unknown	unknown	2.0	8/05/2023 9:22	1.061	6.819	3.51	Good condition
MW022	SW0057-STP5, MW22	6.030	unknown	unknown	1.5	8/05/2023 10:37	0.663	5.367	3.09	Mounument is damaged by floods. It has been bent and the lid has sheared off.
MW023	SW0057-STP7, MW23	6.010	unknown	unknown	3.0	8/05/2023 11:03	0.705	5.305	4.34	Good condition.
MW024	SW0256-NAA-MW01, MW24	19.920	12	15	13.5	12/05/2023 7:55	11.780	8.140	15.40	Good condition.
MW025	SW0256-NAA-MW02, MW25	17.140	16	20	17.0	9/05/2023 9:59	9.300	7.840	19.99	Good condition.
MW026	SW0256-NAA-MW03, MW26	16.900	9	12	10.0	12/05/2023 8:20	9.391	7.509	12.05	Good condition. Gatic box full of water, above TOC. Water drained prior to removing J-cap.
MW027	SW0256-NAA-MW04, MW27	16.420	10	13	n/a	12/05/2023 8:50	n/a	n/a	n/a	Location buried under disturbed ground. Metal detector used, unable to locate.
MW028	SW0256-NAA-MW05, MW28	16.900	8	11	9.0	12/05/2023 10:02	8.841	8.059	11.17	Good condition.
MW030	SW0054-BH8/8, MW30	21.262	13	18	15.0	8/05/2023 13:30	14.239	7.023	16.86	Good condition
MW032	SW0249-NAA-MW02, MW32	17.810	12	15	n/a	15/05/2023 11:15	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW032	SW0249-NAA-MW02, MW32	17.810	12	15	12.5	15/05/2023 15:18	12.049	5.761	14.31	Good condition.
MW033	SW0249-NAA-MW03, MW33	14.840	10	13	n/a	15/05/2023 11:10	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW033	SW0249-NAA-MW03, MW33	14.840	10	13	10.5	15/05/2023 15:06	9.144	5.696	12.31	Good condition.
MW034	SW0249-NAA-MW04, MW34	16.930	14	17	14.5	15/05/2023 10:57	10.976	5.954	16.61	Good condition.
MW036	SW0263-NAA-MW01, MW36	20.820	18	22	19.0	8/05/2023 13:00	14.531	6.289	21.96	Good condition
MW040	SW0236-NAA-MW01, MW40	19.520	15	18	15.5	12/05/2023 10:20	10.879	8.641	17.84	Good condition.
MW041	SW0234-NAA-MW01, MW41	19.730	14	17	n/a	12/05/2023 10:37	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW041	SW0234-NAA-MW01, MW41	19.730	14	17	14.5	15/05/2023 12:09	10.779	8.951	16.46	Good condition.
MW042	SW0237-NAA-MW01, MW42	18.320	13	16	14.0	12/05/2023 10:47	10.141	8.179	16.23	Good condition.
MW043	SW0235-NAA-MW01, MW43	16.450	15	18	n/a	12/05/2023 10:50	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW043	SW0235-NAA-MW01, MW43	16.450	15	18	15.5	15/05/2023 12:21	8.349	8.101	17.79	Good condition.
MW045	SW0241-NAA-MW02, MW45	16.740	15	18	16.0	9/05/2023 10:28	9.170	7.570	17.83	Good condition.
MW046	SW0241-NAA-MW03, MW46	16.710	15	18	17.0	9/05/2023 10:18	9.115	7.595	17.93	Good condition.
MW047	SW0061-NAA-MW01, MW47	13.780	9	12	n/a	12/05/2023 7:10	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW047	SW0061-NAA-MW01, MW47	13.780	9	12	9.5	15/05/2023 12:44	8.337	5.443	11.41	Good condition.
MW048	SW0061-NAA-MW02, MW48	17.620	10	13	n/a	12/05/2023 7:05	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW048	SW0061-NAA-MW02, MW48	17.620	10	13	12.0	12/05/2023 12:11	11.935	5.685	14.30	Good condition.
MW050	SW0061-BH102/2, MW50	10.200	unknown	unknown	n/a	12/05/2023 7:21	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW050	SW0061-BH102/2, MW50	10.200	unknown	unknown	6.0	15/05/2023 13:07	4.290	5.910	7.97	Good condition.
MW051	SW0061-BH102/5, MW51	10.300	2	5	n/a	12/05/2023 7:17	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW051	SW0061-BH102/5, MW51	10.300	2	5	3.0	15/05/2023 13:00	3.141	7.159	5.10	Good condition.
MW052	SW0061-BH102/6, MW52	10.710	6	9	n/a	12/05/2023 7:13	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW052	SW0061-BH102/6, MW52	10.710	6	9	7.5	15/05/2023 12:53	4.929	5.781	9.43	Good condition.
MW053	SW0138-NAA-MW01, MW53	20.950	14	17	n/a	8/05/2023 13:41	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW053	SW0138-NAA-MW01, MW53	20.950	14	17	14.5	9/05/2023 15:44	13.921	7.029	16.54	Good condition.
MW054	SW0138-NAA-MW02, MW54	24.310	15	18	n/a	8/05/2023 15:17	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW054	SW0138-NAA-MW02, MW54	24.310	15	18	17.0	9/05/2023 16:47	17.252	7.058	18.39	Good condition.
MW056	SW0138-BH8/17, MW56	19.390	12	16	n/a	8/05/2023 13:52	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW056	SW0138-BH8/17, MW56	19.390	12	16	14.0	9/05/2023 16:02	12.334	7.056	15.48	Good condition.
MW057	SW0138-BH8/18, MW57	22.920	14	19	n/a	8/05/2023 15:28	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW057	SW0138-BH8/18, MW57	22.920	14	19	18.0	9/05/2023 16:57	15.961	6.959	20.96	Good condition.
MW058	SW0138-BH8/19, MW58	22.823	15	19	n/a	8/05/2023 15:42	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW058	SW0138-BH8/19, MW58	22.823	15	19	16.0	9/05/2023 16:35	15.923	6.900	20.09	Good condition.
MW059	SW0138-BH8/26, MW59	20.740	15	19	n/a	8/05/2023 14:41	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW059	SW0138-BH8/26, MW59	20.740	15	19	15.5	9/05/2023 16:20	13.708	7.032	16.70	Good condition.
MW060	SW0279-NAA-MW01, MW60	17.890	13	16	n/a	9/05/2023 7:40	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW060	SW0279-NAA-MW01, MW60	17.890	13	16	13.5	9/05/2023 12:12	10.574	7.316	15.67	Good condition.
MW061	SW0279-NAA-MW02, MW61	18.390	11	14	n/a	9/05/2023 7:50	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW061	SW0279-NAA-MW02, MW61	18.390	11	14	11.5	9/05/2023 12:06	10.935	7.455	13.36	Good condition. Gatic box full of water, above TOC. Water drained prior to removing J-cap.
MW062	SW0238-NAA-MW01, MW62	18.910	12	15	12.5	9/05/2023 9:13	10.965	7.945	13.62	Good condition.
MW063	SW0238-NAA-MW02, MW63	19.620	12	15	13.0	9/05/2023 9:34	10.700	8.920	15.24	Good condition.

Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	HydraSleeve Collar Depth (mbTOC)	Visit / Gauging Date Time	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit / Gauging Comment
MW064	SW0059-NAA-MW01, MW64	17.860	10	14	13.0	9/05/2023 11:40	10.560	7.300	14.77	Good condition.
MW065	SW0059-NAA-MW02, MW65	17.950	10	13	12.0	9/05/2023 11:27	10.552	7.398	13.14	Good condition.
MW066	SW0059-NAA-MW03, MW66	18.030	11	15	12.0	9/05/2023 11:07	10.542	7.488	14.97	Good condition.
MW067	SW0246-NAA-MW01, MW67	18.600	12	15	13.0	9/05/2023 8:55	10.750	7.850	14.67	Good condition.
MW068	SW0246-NAA-MW02, MW68	19.050	12	15	12.5	9/05/2023 8:08	10.420	8.630	15.06	Good condition.
MW069	SW0246-NAA-MW03, MW69	19.030	13	16	13.5	11/05/2023 6:55	10.909	8.121	15.43	Good condition.
MW070	SW0246-BH2/MW2, MW70	19.400	2	5	3.0	9/05/2023 8:28	4.074	15.326	5.32	Good condition.
MW071	SW0246-BH4/MW4, MW71	19.150	2	5	3.0	9/05/2023 8:38	3.701	15.449	5.11	Good condition.
MW072	SW0003-BHFF19, MW72	7.020	unknown	unknown	n/a	15/05/2023 10:30	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW072	SW0003-BHFF19, MW72	7.020	unknown	unknown	11.0	15/05/2023 14:38	8.126	-1.106	13.05	Good condition.
MW073	SW0003-MW02, MW73	15.331	10	13	n/a	15/05/2023 10:40	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW073	SW0003-MW02, MW73	15.331	10	13	10.5	15/05/2023 14:48	7.888	7.443	11.70	Good condition.
MW074	SW0003-MW03, MW74	15.630	10	14	11.0	15/05/2023 10:43	8.351	7.279	12.93	Good condition.
MW075	MW75	18.097	12	15	12.5	8/05/2023 12:25	7.524	10.573	14.57	Good condition
MW076	MW76	19.540	15	18	16.0	10/05/2023 11:49	10.585	8.955	18.26	Good condition.
MW077	MW77	19.942	20	22	20.0	10/05/2023 12:18	10.596	9.346	21.78	Good condition.
MW078	MW78	19.807	15	18	n/a	10/05/2023 13:12	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW078	MW78	19.807	15	18	15.5	11/05/2023 7:40	10.981	8.826	17.62	Good condition.
MW079	MW79	20.453	15	18	16.0	10/05/2023 13:55	11.680	8.773	18.16	Good condition.
MW080	MW80	22.779	21	24	22.0	8/05/2023 16:29	14.380	8.399	24.42	Good condition
MW081	MW81	7.376	3	6	3.5	9/05/2023 13:18	0.264	7.112	5.50	Good condition.
MW082	MW82	8.781	3	6	3.5	9/05/2023 14:09	2.179	6.602	5.73	Good condition.
MW086	MW86	10.387	3.6	6.6	n/a	10/05/2023 14:10	n/a	n/a	n/a	Location under stockpile. Unable to locate.
MW091	MW91	8.345	4	7	4.5	10/05/2023 9:05	3.765	4.580	6.47	Good condition. Location found burried under approx. 40 cm of soil.
MW092	MW92	8.995	19	22	19.5	10/05/2023 9:26	6.113	2.882	21.91	Good condition.
MW106		22.738	28	31	28.0	8/05/2023 16:37	14.369	8.369	29.98	Good condition
MW107D	MW107_D	22.973	27.5	30.5	28.0	8/05/2023 14:59	13.650	9.323		Good condition. Total depth not measured (greater than interface probe length).
MW107I	MW107_I	22.860	21.8	24.8	n/a	8/05/2023 14:50	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW107I	MW107_I	22.860	21.8	24.8	22.0	9/05/2023 16:28	15.893	6.967	25.92	Good condition.
MW108		21.316	25	28	26.0	8/05/2023 13:21	14.300	7.016	28.96	Good condition
MW109		6.205	10	13	11.5	8/05/2023 10:17	0.920	5.285	13.54	Good condition
MW110		7.644	12	15	12.5	8/05/2023 11:22	1.510	6.134	14.66	Good condition
MW111		9.422	16	19	17.0	11/05/2023 10:20	3.578	5.844	17.31	Good condition.
MW112		6.791	12	15	13.5	11/05/2023 10:38	1.651	5.140	15.68	Good condition.
MW113		9.443	16	19	17.5	11/05/2023 11:24	4.484	4.959	19.68	Good condition.
MW114		9.698	16	19	17.5	11/05/2023 14:31	5.668	4.030	19.43	Good condition.
MW143		6.631	2	5	n/a	10/05/2023 9:55	n/a	n/a	n/a	Good condition. No Hydrasleeve found. Hydrasleeve installed for sampling this round.
MW143		6.631	2	5	3.5	10/05/2023 14:20	3.028	3.603	5.02	Good condition.
MW143		6.631	2	5	3.7	09/06/2023 14:36	2.998	3.633	5.01	Good condition. Resampling visit.
MW144		5.300	3	6	4.5	10/05/2023 10:20	1.327	3.973	6.17	Good condition. Gatic box full of water, above TOC. Water drained prior to removing J-cap.
MW144		5.300	3	6	4.5	09/06/2023 14:03	1.457	3.843	6.00	Good condition. Gatic box full of water, above TOC. Water drained prior to removing J-cap. Resampling visit.

Notes

mbTOC	meters below Top of Casing
mAHD	meters Australian Height Datum
n/a	Not applicable
-	Not measured

Table T2 - Groundwater Quality Parameters and Observations

			Water Quality Parameters					
			Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
Location Code	**Sampled Date Time**	**Sample Comment**	mg/L	°C	µS/cm	pH_Units	mV	mV
MW001	11/05/2023 14:42	Clear, no turbidity, no odour, no sheen.	0.89	18.7	350.0	6.26	23.0	228.8
MW002	11/05/2023 11:20	Clear, low turbidity, no odour, no sheen.	1.20	18.1	2,892.0	6.87	43.3	249.1
MW004	11/05/2023 10:34	Light brown, no turbidity, no odour, no sheen.	1.51	17.6	1,893.0	6.45	17.4	223.2
MW005	11/05/2023 14:18	Clear, no turbidity, no odour, no sheen.	1.39	19.0	2,081.0	6.51	6.6	212.4
MW007	15/05/2023 12:34	Light grey, no turbidity, no odour, no sheen.	3.37	19.6	3,045.0	6.60	44.2	250.0
MW008	12/05/2023 11:35	Clear, no turbidity, no odour, no sheen.	0.97	18.9	3,637.0	6.27	-24.7	181.1
MW009	12/05/2023 11:46	Clear, no turbidity, no odour, no sheen.	1.71	20.2	7,451.0	6.01	23.8	229.6
MW010	12/05/2023 11:58	Clear, no turbidity, no odour, no sheen.	0.87	20.8	1,359.0	6.39	47.5	253.3
MW012	11/05/2023 16:04	Ligh yellow, medium turbidity, no odour, no sheen.	2.33	16.6	8,434.0	6.13	73.7	279.5
MW013	11/05/2023 12:28	Clear, low turbidity, no odour, no sheen.	2.07	17.9	999.0	6.05	70.8	276.6
MW014	11/05/2023 13:05	Clear, no turbidity, no odour, no sheen.	1.95	19.0	794.0	7.05	18.3	224.1
MW015	11/05/2023 13:13	Clear, low turbidity, no odour, no sheen.	2.52	18.3	598.0	6.75	-73.0	132.8
MW016	11/05/2023 9:55	Clear, no turbidity, no odour, no sheen.	2.34	16.9	1,808.0	7.71	75.2	281.0
MW017	11/05/2023 12:51	Clear, low turbidity, no odour, no sheen.	2.31	17.8	3,821.0	7.21	81.8	287.6
MW020	8/05/2023 16:15	Clear, low turbidity, no odour, no sheen.	1.05	19.0	2,509.0	6.80	-25.7	180.1
MW021	8/05/2023 9:28	Light brown, low turbidity, no odour, no sheen.	0.81	19.9	972.0	6.58	13.0	218.8
MW022	8/05/2023 10:40	Clear, low turbidity, no odour, no sheen.	3.02	15.8	2,300.0	6.81	26.9	232.7
MW023	8/05/2023 11:06	Light brown, no turbidity, no odour, no sheen.	3.86	16.4	986.0	7.52	75.0	280.8
MW024	12/05/2023 8:01	Clear, low turbidity, no odour, no sheen.	1.35	14.0	3,889.0	6.25	133.3	339.1
MW025	9/05/2023 10:05	Clear, no turbidity, no odour, no sheen.	3.99	20.6	196.8	7.26	28.2	234.0
MW026	12/05/2023 8:22	Clear, no turbidity, no odour, no sheen.	2.02	18.3	853.0	6.75	99.2	305.0
MW028	12/05/2023 10:05	Clear, no turbidity, no odour, no sheen.	0.92	18.9	1,843.0	7.49	108.2	314.0
MW030	8/05/2023 13:35	Light brown, low turbidity, no odour, no sheen.	0.94	19.7	1,187.0	6.26	-79.8	126.0
MW032	15/05/2023 15:20	Light grey, no turbidity, no odour, no sheen.	2.32	21.6	1,365.0	6.92	4.0	209.8
MW033	15/05/2023 15:10	Ligh yellow, no turbidity, no odour, no sheen.	2.22	21.5	1,108.0	7.25	-39.3	166.5
MW034	15/05/2023 11:00	Clear, low turbidity, no odour, no sheen.	1.34	21.0	1,281.0	7.14	-65.2	140.6
MW036	8/05/2023 13:05	Light brown, low turbidity, no odour, no sheen.	1.83	19.7	1,350.0	6.42	14.6	220.4
MW040	12/05/2023 10:22	Clear, low turbidity, no odour, no sheen.	1.04	18.5	347.0	6.42	97.3	303.1
MW041	15/05/2023 12:09	Clear, no turbidity, no odour, no sheen.	1.21	20.6	2,734.0	6.11	-81.4	124.4
MW042	12/05/2023 10:50	Clear, no turbidity, no odour, no sheen.	2.37	20.3	279.3	6.26	106.4	312.2
MW043	15/05/2023 12:22	Ligh yellow, low turbidity, no odour, no sheen.	0.97	19.8	163.2	6.27	-43.5	162.3
MW045	9/05/2023 10:31	Light brown, no turbidity, no odour, no sheen.	0.89	20.2	1,627.0	6.33	63.8	269.6
MW046	9/05/2023 10:20	Light brown, low turbidity, no odour, no sheen.	1.04	20.6	1,715.0	6.14	53.0	258.8
MW047	15/05/2023 12:48	Clear, no turbidity, no odour, no sheen.	1.01	20.1	3,241.0	6.96	31.9	237.7
MW048	12/05/2023 12:14	Clear, no turbidity, no odour, no sheen.	2.06	19.9	1,857.0	6.49	85.1	290.9
MW050	15/05/2023 13:08	Ligh yellow, no turbidity, no odour, no sheen.	0.82	18.7	249.4	6.93	-59.3	146.5
MW051	15/05/2023 13:01	Light grey, low turbidity, no odour, no sheen.	0.73	20.2	1,023.0	6.85	-67.6	138.2
MW052	15/05/2023 12:54	Clear, no turbidity, no odour, no sheen.	1.18	20.7	1,238.0	7.27	13.7	219.5
MW053	9/05/2023 15:50	Light brown, low turbidity, no odour, no sheen.	1.34	19.7	1,580.0	6.45	-118.9	86.9
MW054	9/05/2023 16:48	Clear, low turbidity, no odour, no sheen.	1.49	18.7	1,833.0	6.65	81.6	287.4
MW056	9/05/2023 16:06	Clear, no turbidity, no odour, no sheen.	1.34	19.3	3,056.0	5.71	6.6	212.4
MW057	9/05/2023 17:00	Clear, low turbidity, no odour, no sheen.	1.02	17.6	1,040.0	6.49	109.4	315.2
MW058	9/05/2023 16:39	Light brown, low turbidity, no odour, no sheen.	1.65	19.2	3,681.0	6.14	111.1	316.9
MW059	9/05/2023 16:20	Clear, no turbidity, no odour, no sheen.	2.50	19.3	5,031.0	5.91	77.5	283.3
MW060	9/05/2023 12:14	Clear, low turbidity, no odour, no sheen.	1.58	20.4	3,081.0	5.97	31.8	237.6
MW061	9/05/2023 12:10	Light brown, low turbidity, no odour, no sheen.	0.92	21.3	673.0	6.23	-24.3	181.5
MW062	9/05/2023 9:15	Light brown, low turbidity, no odour, no sheen.	2.26	18.7	9,627.0	6.65	84.4	290.2
MW063	9/05/2023 9:39	Light brown, no turbidity, no odour, no sheen.	1.51	19.1	577.0	6.33	2.4	208.2
MW064	9/05/2023 11:45	Light grey, low turbidity, no odour, no sheen.	0.88	20.5	1,159.0	6.39	-6.6	199.2
MW065	9/05/2023 11:30	Light grey, low turbidity, no odour, no sheen.	1.40	21.6	809.0	6.42	-58.2	147.6
MW066	9/05/2023 11:11	Light brown, no turbidity, no odour, no sheen.	1.23	19.9	227.4	6.49	71.6	277.4
MW067	9/05/2023 9:00	Light brown, no turbidity, no odour, no sheen.	0.76	17.7	6,147.0	6.61	127.2	333.0
MW068	9/05/2023 8:10	Light brown, low turbidity, no odour, no sheen.	0.32	14.3	2,169.0	6.46	54.2	260.0
MW069	11/05/2023 6:57	Clear, low turbidity, no odour, no sheen.	1.24	16.6	570.0	5.93	127.9	333.7
MW070	9/05/2023 8:29	Ligh yellow, low turbidity, no odour, no sheen.	0.76	18.2	215.2	5.84	82.0	287.8
MW071	9/05/2023 8:44	Light brown, no turbidity, no odour, no sheen.	4.31	18.4	100.7	6.17	122.3	328.1

Table T2 - Groundwater Quality Parameters and Observations

			Water Quality Parameters					
			Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
Location Code	**Sampled Date Time**	**Sample Comment**	mg/L	°C	µS/cm	pH_Units	mV	mV
MW072	15/05/2023 14:40	Light grey, low turbidity, no odour, no sheen.	1.63	20.8	308.4	5.99	25.5	231.3
MW073	15/05/2023 14:50	Clear, no turbidity, no odour, no sheen.	1.40	21.2	676.0	6.51	-9.7	196.1
MW074	15/05/2023 10:45	Clear, low turbidity, no odour, no sheen.	0.86	20.1	1,517.0	6.56	22.5	228.3
MW075	8/05/2023 12:30	Light brown, medium turbidity, no odour, no sheen.	1.22	20.2	493.6	6.09	-15.7	190.1
MW076	10/05/2023 11:50	Ligh yellow, low turbidity, no odour, no sheen.	1.88	19.5	396.5	5.92	83.5	289.3
MW077	10/05/2023 12:21	Ligh yellow, no turbidity, no odour, no sheen.	0.84	19.6	564.0	6.15	89.8	295.6
MW078	11/05/2023 7:42	Clear, low turbidity, no odour, no sheen.	1.04	16.9	1,789.0	6.37	28.1	233.9
MW079	10/05/2023 14:00	Light brown, low turbidity, no odour, no sheen.	1.67	18.8	1,406.0	5.95	118.3	324.1
MW080	8/05/2023 16:30	Clear, low turbidity, no odour, no sheen.	0.76	19.3	898.0	6.12	20.4	226.2
MW081	9/05/2023 13:24	Light brown, low turbidity, no odour, no sheen.	2.57	18.5	598.0	6.48	15.8	221.6
MW082	9/05/2023 14:10	Light brown, no turbidity, no odour, no sheen.	1.64	19.1	1,143.0	6.51	-34.5	171.3
MW091	10/05/2023 9:10	Clear, low turbidity, no odour, no sheen.	1.29	19.3	187.9	5.89	113.1	318.9
MW092	10/05/2023 9:30	Light brown, low turbidity, no odour, no sheen.	1.56	19.2	1,183.0	5.76	5.8	211.6
MW106	8/05/2023 16:45	Light brown, no turbidity, no odour, no sheen.	0.89	19.1	1,347.0	5.91	-30.1	175.7
MW107D	8/05/2023 15:08	Light brown, low turbidity, no odour, no sheen.	0.81	17.7	2,394.0	5.87	-86.1	119.7
MW107I	9/05/2023 16:30	Clear, no turbidity, no odour, no sheen.	0.90	19.7	540.0	6.05	49.9	255.7
MW108	8/05/2023 13:26	Clear, no turbidity, no odour, no sheen.	0.82	19.3	2,573.0	5.99	-88.5	117.3
MW109	8/05/2023 10:20	Light brown, low turbidity, no odour, no sheen.	0.83	17.6	3,847.0	6.53	-108.2	97.6
MW110	8/05/2023 11:24	Clear, no turbidity, no odour, no sheen.	1.34	19.4	3,223.0	6.54	-31.0	174.8
MW111	11/05/2023 10:20	Clear, no turbidity, no odour, no sheen.	1.29	17.1	3,288.0	6.49	48.9	254.7
MW112	11/05/2023 10:42	Clear, low turbidity, no odour, no sheen.	0.58	17.7	2,777.0	6.11	23.4	229.2
MW113	11/05/2023 11:24	Clear, no turbidity, no odour, no sheen.	1.67	18.3	3,337.0	7.20	44.5	250.3
MW114	11/05/2023 14:31	Light yellow, low turbidity, no odour, no sheen.	0.89	18.9	2,105.0	6.87	-116.5	89.3
MW143	10/05/2023 14:25	Light brown, low turbidity, no odour, no sheen.	1.60	20.4	626.0	6.39	116.6	322.4
MW143	09/06/2023 14:41	Light brown, medium turbidity, no odour, no sheen.	0.04	19.0	649.0	6.48	276.9	482.7
MW144	10/05/2023 10:25	Light grey, low turbidity, no odour, no sheen.	0.98	18.5	3,016.0	6.75	20.3	226.1
MW144	09/06/2023 14:09	Light brown, low turbidity, no odour, no sheen.	0.31	18.8	4,615.0	6.89	222.8	428.6

Notes

mV	milliVolts
mg/L	milligrams per Litre
°C	degrees Celsius
µS/cm	microSiemens per centimetre

Corrected field Redox measurement Eh = Er + 205.8

Table T3 - Surface Water Quality Parameters and Observations

						Water Quality Parameters					
						Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
Location Code	**Sampled Date Time**	**Location Comments**	**Sample Depth From (m)**	**Sample Depth To (m)**	**Sample Comment**	mg/L	°C	µS/cm	pH_Units	mV	mV
SW001	8/05/2023 14:16	Drainage channel. 1 m wide, 0.2 m deep.	0.05	0.10	Clear, low turbidity, no odour, no sheen.	7.39	17.6	80.3	6.15	-10.8	195.0
SW002	8/05/2023 9:44	Creek. Waterbody 0.5 m wide, 0.4 m deep.	0.15	0.20	Clear, low turbidity, no odour, no sheen.	3.58	15.9	137.3	6.55	49.3	255.1
SW003	8/05/2023 10:05	Creek. Waterbody 0.5 m wide, 0.2 m deep. Algae observed.	0.10	0.20	Light brown, low turbidity, no odour, no sheen.	3.55	13.1	174.1	6.23	21.1	226.9
SW005	11/05/2023 11:02	Creek. Waterbody 2 m wide, 0.5 m deep.	0.20	0.25	Light brown, low turbidity, no odour, no sheen.	0.63	13.0	966.0	7.01	3.9	209.7
SW007	11/05/2023 11:35	Creek. Waterbody 8 m wide, 0.5 m deep.	0.20	0.25	Light brown, medium turbidity, no odour, biosheen.	1.39	15.0	1004.0	6.81	59.1	264.9
SW008	11/05/2023 14:48	Pond. Waterbody 30 m wide, 0.5 m deep.	0.20	0.25	Ligh yellow, low turbidity, no odour, biosheen.	3.13	16.3	876.0	6.67	61.3	267.1
SW009	11/05/2023 15:15	Pond. Waterbody 20 m wide, 0.5 m deep.	0.20	0.25	Clear, low turbidity, no odour, no sheen.	5.94	15.8	801.0	6.78	68.3	274.1
SW011	11/05/2023 12:16	Pond, Waterbody 20 m wide, 0.5 m deep.	0.20	0.25	Clear, no turbidity, no odour, no sheen.	10.15	18.8	77.4	8.65	46.2	252.0
SW013	11/05/2023 12:40	Creek. Waterbody 20 m wide, 0.5 m deep.	0.20	0.25	Light brown, low turbidity, no odour, no sheen.	5.96	19.8	865.0	7.07	69.6	275.4
SW014	11/05/2023 10:07	Culvert. Waterbody 0.5 m wide, 0.1 m deep. Algae observed.	0.05	0.10	Brown, high turbidity, no odour, biosheen.	1.01	10.6	157.1	6.92	-96.0	109.8
SW015	10/05/2023 10:23	Creek. Waterbody 2 m wide, 0.2 m deep.	0.05	0.10	Brown, high turbidity, no odour, biosheen.	2.30	12.1	970.0	6.86	2.6	208.4
SW015	09/06/2023 14:25	Creek. Waterbody 2 m wide, 0.5 m deep. Resampling visit.	0.20	0.25	Light brown, low turbidity, no odour, no sheen.	8.71	14.7	1211.0	7.61	151.3	357.1
SW016	10/05/2023 9:54	Creek. Waterbody 6 m wide, 0.5 m deep. Algae observed.	0.20	0.25	Light brown, low turbidity, no odour, biosheen.	2.38	12.3	204.2	6.15	42.3	248.1
SW016	09/06/2023 14:53	Creek. Waterbody 6 m wide, 0.5 m deep. Algae observed. Resampling visit.	0.20	0.25	Light brown, low turbidity, no odour, no sheen.	6.65	2.6	343.2	6.96	37.6	243.4
SW018	10/05/2023 8:30	River. Waterbody 15m wide. 0.5 m deep.	0.05	0.10	Clear, no turbidity, no odour, no sheen.	8.49	12.4	293.2	6.84	116.2	322.0
SW019	10/05/2023 10:45	Creek. Waterbody 5 m wide, 0.5 m deep.	0.05	0.10	Clear, low turbidity, no odour, no sheen.	3.70	13.5	835.0	6.75	53.3	259.1
SW020	10/05/2023 11:15	River. Waterbody 20 m wide. 0.5 m deep.	0.05	0.10	Light brown, no turbidity, no odour, no sheen.	8.01	15.1	839.0	7.21	80.7	286.5
SW022	9/05/2023 13:27	Drainage channel. Waterbody 5m wide, 0.4m deep.	0.15	0.20	Light brown, no turbidity, no odour, no sheen.	4.61	14.2	329.2	6.91	35.6	241.4
SW023	10/05/2023 8:45	Creek. Waterbody 5 m wide, 0.5 m deep.	0.20	0.25	Clear, low turbidity, no odour, no sheen.	3.75	11.8	707.0	6.71	108.5	314.3
SW024	9/05/2023 15:10	River. Waterbody 50 m wide, 10 m deep.	0.03	0.05	Clear, low turbidity, no odour, no sheen.	5.72	18.0	256.7	6.79	97.7	303.5
SW030	10/05/2023 7:50	River. Waterbody 50m wide.	0.05	0.10	Light brown, low turbidity, no odour, no sheen.	8.33	12.3	374.4	6.27	119.4	325.2
SW035	9/05/2023 14:33	River. Waterbody 20 m wide, 0.5 m deep.	0.10	0.20	Light brown, low turbidity, no odour, no sheen.	9.06	19.4	265.1	7.45	57.3	263.1
SW037	8/05/2023 10:55	Sewerage pond. 30 m wide, 1 m deep.	0.40	0.50	Light brown, low turbidity, no odour, no sheen.	6.17	15.2	317.9	7.60	61.4	267.2
SW081	n/a	Unable to access location as the road was closed due to Coucil road rectification works. Not sampled.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SW085	n/a	Location was observed to be dry and not be representative of Bakers Lagoon water body. Not sampled.	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes

mV	milliVolts
mg/L	milligrams per Litre
°C	degrees Celsius
µS/cm	microSiemens per centimetre
Corrected field Redox measurement Eh = Er + 205.8	
n/a	Not applicable

Table T4 - Sediment Observations

Location Code	Alternative Name	Sampled Date Time	Sample Depth From (m)	Sample Depth To (m)	Sample Comment
SD001		8/05/2023 14:20	0.05	0.10	Sandy CLAY, light brown, low plasticity, medium grain sand, gravel and root inclusions. No odour or staining.
SD002		8/05/2023 9:48	0.05	0.10	SILT: brown, low plasticity with organic inclusions (roots). No odour, no staining.
SD003		8/05/2023 10:08	0.05	0.10	CLAY: brown, medium plasticity, with organic inclusions (roots). No odour or staining.
SD005		11/05/2023 11:03	0.05	0.10	SILT: brown, low plasticity, with organic inclusions (roots). No odour or staining.
SD007		11/05/2023 11:43	0.05	0.10	SILT: brown, low plasticity, with organic inclusions (roots). No odour or staining.
SD008		11/05/2023 14:50	0.05	0.10	SILT: brown, low plasticity, with organic inclusions (roots). No odour or staining.
SD009		11/05/2023 15:15	0.05	0.10	SILT: brown, low plasticity, with organic inclusions (roots). No odour or staining.
SD011		11/05/2023 12:19	0.05	0.10	Clayey GRAVEL: brown, subangular, high plasticity clay. No odour or staining.
SD013		11/05/2023 12:38	0.05	0.10	Sandy GRAVEL: dark brown, subangular, medium grained sand. No odour or staining.
SD014		11/05/2023 10:08	0.05	0.10	Sandy SILT: brown, low plasticity, with gravel and organic inclusions. No odour or staining.
SD015		10/05/2023 10:24	0.05	0.10	SILT: brown, medium plasticity, with organic inclusions. No odour or staining.
SD016	PW004	10/05/2023 9:55	0.05	0.10	SILT: brown, low plasticity, with organic inclusions. No odour or staining.
SD018		10/05/2023 8:25	0.05	0.10	CLAY: brown, medium plasticity, with organic inclusions (grass). No odour, no staining.
SD019		10/05/2023 10:45	0.05	0.10	Silty CLAY: brown, medium plasticity, with organic inclusions (roots). No odour or staining.
SD020		10/05/2023 11:15	0.05	0.10	Silty CLAY: grey, medium plasticity. No odour or staining.
SD022		9/05/2023 13:25	0.02	0.05	CLAY: brown, high plasticity. No odour or staining.
SD023	PW001	10/05/2023 8:45	0.05	0.10	Sandy SILT: brown, low plasticity, fine grain sand, subangular gravels. No odour or staining.
SD024		9/05/2023 15:15	0.05	0.10	Silty CLAY: brown, low plasticity, with organic and gravel inclusions. No odour or staining.
SD030	PW003	10/05/2023 7:50	0.05	0.10	SAND: brown, medium grained. No odour or staining.
SD035		9/05/2023 14:43	0.05	0.10	Silty CLAY: grey, high plasticity, with organic inclusions (leaves). No odour, no staining.
SD081		n/a	n/a	n/a	Unable to access location as the road was closed due to Council road rectification works. Not sampled.
SD085		n/a	n/a	n/a	Location was observed to not be representative of Bakers Lagoon. Not sampled.

Notes
n/a Not applicable

Table T5 - Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.05	0.01	0.01	0.02	0.02	0.02	0.05	0.02	0.05	0.05	0.02	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report Number**																															
MW001	11 May 2023	0902_MW001_230511	Normal	ES2316196		*<0.01*	*<0.01*	0.10	**0.10**	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	11 May 2023	0902_MW002_230511	Normal	ES2316196		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW004	11 May 2023	0902_MW004_230511	Normal	ES2316196		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	11 May 2023	0902_MW005_230511	Normal	ES2316196		*<0.01*	*0.03*	0.03	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	15 May 2023	0902_MW007_230515	Normal	ES2316196		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW008	12 May 2023	0902_MW008_230511	Normal	ES2316196		*<0.01*	*0.08*	0.20	**0.28**	0.47	0.09	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW009	12 May 2023	0902_MW009_230511	Normal	ES2316196		*<0.01*	*0.06*	0.02	**0.08**	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW010	12 May 2023	0902_MW010_230511	Normal	ES2316196		0.01	*0.12*	0.13	**0.25**	0.31	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW012	11 May 2023	0902_MW012_230511	Normal	ES2316196		0.03	*0.24*	1.53	**1.77**	2.79	0.41	0.28	0.02	*<0.02*	*<0.1*	0.05	0.20	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW013	11 May 2023	0902_MW013_230511	Normal	ES2316196		0.03	*0.10*	2.15	**2.25**	3.59	0.47	0.33	0.02	*<0.02*	0.1	0.06	0.31	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW014	11 May 2023	0902_MW014_230511	Normal	ES2316196		0.03	*0.14*	1.59	**1.73**	2.98	0.42	0.32	0.04	*<0.02*	*<0.1*	0.07	0.34	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW015	11 May 2023	0902_MW015_23011	Normal	ES2316196		0.17	*4.34*	3.94	**8.28**	10.7	0.63	0.56	0.22	*<0.02*	0.1	0.12	0.53	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW016	11 May 2023	0902_MW016_230511	Normal	ES2316196		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	11 May 2023	0902_MW017_230511	Normal	ES2316196		0.02	*0.73*	2.02	**2.75**	3.42	0.33	0.27	0.05	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	08 May 2023	0902_MW020_230508	Normal	ES2316196		0.01	*0.05*	1.74	**1.79**	2.67	0.46	0.37	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	08 May 2023	0902_MW021_230508	Normal	ES2316196		0.38	*4.36*	2.66	**7.02**	8.67	0.13	0.14	0.12	*<0.02*	0.1	0.17	0.44	0.13	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	08 May 2023	0902_MW022_230508	Normal	ES2316196		0.48	*12.0*	10.1	**22.1**	28.6	1.30	1.18	0.44	0.02	0.2	0.69	1.61	0.39	0.13	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	08 May 2023	0902_MW023_230508	Normal	ES2316196		*<0.01*	*0.04*	0.09	**0.13**	0.19	0.04	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW024	12 May 2023	0902_MW024_230512	Normal	ES2316196		*<0.01*	*0.03*	0.48	**0.51**	1.18	0.29	0.22	*<0.02*	*<0.02*	*<0.1*	0.03	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	09 May 2023	0902_MW025_230509	Normal	ES2316196		*<0.01*	*0.11*	0.04	**0.15**	0.23	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	12 May 2023	0902_MW026_230512	Normal	ES2316196		0.14	*0.52*	3.31	**3.83**	5.60	0.44	0.50	0.13	*<0.02*	*<0.1*	0.08	0.41	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	12 May 2023	0902_MW028_230512	Normal	ES2316196		0.23	*0.07*	11.8	**11.9**	23.4	2.66	2.69	0.05	*<0.02*	0.6	0.90	3.75	0.67	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	08 May 2023	0902_MW030_230508	Normal	ES2316196		0.05	*0.27*	0.76	**1.03**	1.49	0.13	0.11	*<0.02*	*<0.02*	*<0.1*	0.03	0.12	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW032	15 May 2023	0902_MW032_230515	Normal	ES2316196		0.35	*3.11*	11.6	**14.7**	22.4	1.87	1.80	0.33	*<0.02*	0.6	0.38	2.10	0.22	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW033	15 May 2023	0902_MW033_230515	Normal	ES2316196		0.02	*0.08*	0.85	**0.93**	1.30	0.10	0.09	*<0.02*	*<0.02*	*<0.1*	0.04	0.10	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW034	15 May 2023	0902_MW034_230515	Normal	ES2316196		0.16	*0.43*	4.20	**4.63**	8.00	0.81	0.81	0.17	*<0.02*	0.2	0.18	0.91	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW036	08 May 2023	0902_MW036_230508	Normal	ES2316196		*<0.01*	*0.03*	0.41	**0.44**	0.70	0.12	0.08	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW040	12 May 2023	0902_MW040_230511	Normal	ES2316196		**1.29**	*54.4*	22.3	**76.7**	92.7	2.44	2.32	1.06	0.40	0.9	1.51	5.01	0.75	0.09	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.05	*<0.05*	*<0.05*	0.18	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW041	15 May 2023	0902_MW041_230515	Normal	ES2316196		*<0.01*	*0.04*	0.03	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW042	12 May 2023	0902_MW042_230511	Normal	ES2316196		*<0.01*	*0.10*	0.06	**0.16**	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	15 May 2023	0902_MW043_230515	Normal	ES2316196		*<0.01*	*0.11*	0.02	**0.13**	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	09 May 2023	0902_MW045_230509	Normal	ES2316196		*<0.01*	*0.04*	0.06	**0.10**	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	09 May 2023	0902_MW046_230509	Normal	ES2316196		*<0.01*	*<0.01*	0.05	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	15 May 2023	0902_MW047_230515	Normal	ES2316196		0.15	*2.23*	3.63	**5.86**	8.52	0.74	0.77	0.18	*<0.02*	*<0.1*	0.16	0.56	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	12 May 2023	0902_MW048_230511	Normal	ES2316196		*<0.01*	*<0.01*	0.34	**0.34**	0.82	0.12	0.12	*<0.02*	*<0.02*	*<0.1*	0.04	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	15 May 2023	0902_MW050_230515	Normal	ES2316196		0.14	*5.04*	1.53	**6.57**	7.90	0.21	0.20	0.17	*<0.02*	*<0.1*	0.16	0.36	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	0.02	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW051	15 May 2023	0902_MW051_230515	Normal	ES2316196		***60.9***	*530*	850	**1,380**	1,900	71.0	103	97.4	*<0.05*	23.5	30.4	120	17.5	0.40	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	0.20	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW052	15 May 2023	0902_MW052_230515	Normal	ES2316196		0.22	*2.11*	6.28	**8.39**	15.6	1.69	1.66	0.30	*<0.02*	0.3	0.54	2.33	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	09 May 2023	0902_MW053_230509	Normal	ES2316196		0.56	*0.06*	15.3	**15.4**	26.0	3.14	2.39	0.07	*<0.02*	0.4	0.68	2.88	0.56	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	09 May 2023	0902_MW054_230509	Normal	ES2316196		*<0.01*	*<0.01*	0.42	**0.42**	0.77	0.17	0.08	*<0.02*	*<0.02*	*<0.1*	0.03	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	09 May 2023	0902_MW056_230509	Normal	ES2316196		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	09 May 2023	0902_MW057_230509	Normal	ES2316196		0.06	*0.12*	0.63	**0.75**	1.45	0.13	0.07	0.02	*<0.02*	0.1	0.10	0.18	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW058	09 May 2023	0902_MW058_230509	Normal	ES2316196		**0.61**	*0.02*	11.7	**11.7**	25.7	3.47	2.39	0.06	*<0.02*	0.5	1.11	4.82	1.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW059	09 May 2023	0902_MW059_230509	Normal	ES2316196		0.03	*0.06*	5.98	**6.04**	19.9	4.54	2.64	*<0.02*	*<0.02*	0.5	1.08	4.49	0.58	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW060	09 May 2023	0902_MW060_230509	Normal	ES2316196		0.04	*0.21*	0.87	**1.08**	1.57	0.10	0.10	0.03	*<0.02*	*<0.1*	0.04	0.16	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW061	09 May 2023	0902_MW061_230509	Normal	ES2316196		0.05	*0.21*	0.39	**0.60**	0.97	0.07	0.04	*<0.02*	*<0.02*	*<0.1*	0.08	0.10	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW062	09 May 2023	0902_MW062_230509	Normal	ES2316196		0.01	*0.58*	0.23	**0.81**	1.22	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.19	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	09 May 2023	0902_MW063_230509	Normal	ES2316196		0.56	*0.62*	8.74	**9.36**	17.6	1.69	1.13	0.21	*<0.02*	0.2	0.79	3.06	0.49	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	09 May 2023	0902_QC104_230509	Field_D	ES2316196		**0.95**	*1.28*	12.6	**13.9**	25.7	1.68	2.42	0.38	*<0.02*	0.4	0.91	4.19	0.70	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.21	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	09 May 2023	0902_QC204_230509	Interlab_D	323268		**0.78**	*1.1*	12	**13**	23	1.7	2.0	0.37	*<0.02*	0.59	0.97	3.5	0.53	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.16	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW064	09 May 2023	0902_MW064_230509	Normal	ES2316196		0.01	*0.13*	0.43	**0.56**	0.74	0.09	0.06	0.02	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	09 May 2023	0902_MW065_230509	Normal	ES2316196		*<0.01*	*<0.01*	0.36	**0.36**	0.49	0.08	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T5 - Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.05	0.01	0.01	0.02	0.02	0.02	0.05	0.02	0.05	0.05	0.02	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report Number**																														
MW066	09 May 2023	0902_MW066_230509	Normal	ES2316196		*<0.01*	*0.02*	0.04	0.06	0.08	*<0.02*	*<0.02*	0.02	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	09 May 2023	0902_MW067_230509	Normal	ES2316196		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	09 May 2023	0902_MW068_230509	Normal	ES2316196		0.18	*0.90*	3.38	**4.28**	6.12	0.37	0.41	0.12	*<0.02*	*<0.1*	0.14	0.54	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	09 May 2023	0902_QC103_230509	Field_D	ES2316196		0.22	*1.35*	3.95	**5.30**	7.19	0.29	0.48	0.15	*<0.02*	*<0.1*	0.12	0.55	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	09 May 2023	0902_QC203_230509	Interlab_D	323268		0.18	*1.1*	4.2	**5.3**	7.2	0.30	0.43	0.15	*<0.02*	0.07	0.1	0.54	0.07	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW069	11 May 2023	0902_MW069_230511	Normal	ES2316196		0.02	*0.36*	0.24	**0.60**	0.83	0.08	0.03	0.02	*<0.02*	*<0.1*	0.03	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	11 May 2023	0902_QC113_230511	Field_D	ES2316196		0.03	*0.46*	0.26	**0.72**	0.91	0.07	0.03	*<0.02*	*<0.02*	*<0.1*	0.02	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	11 May 2023	0902_QC213_230511	Interlab_D	323268		0.03	*0.47*	0.36	**0.84**	1.1	0.08	0.04	0.01	*<0.02*	0.02	0.03	0.06	0.01	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW070	09 May 2023	0902_MW070_230509	Normal	ES2316196		0.07	*0.75*	0.47	**1.22**	1.83	0.15	0.05	0.03	*<0.02*	*<0.1*	0.12	0.13	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	09 May 2023	0902_MW071_230509	Normal	ES2316196		0.04	*0.73*	0.30	**1.03**	1.45	0.10	0.03	0.03	*<0.02*	*<0.1*	0.10	0.09	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	15 May 2023	0902_MW072_230515	Normal	ES2316196		**3.64**	*48.3*	81.8	**130**	172	8.79	8.40	3.77	*<0.02*	1.6	2.90	11.7	1.35	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	15 May 2023	0902_MW073_230515	Normal	ES2316196		**2.42**	*5.37*	43.0	**48.4**	81.2	4.56	5.58	1.73	*<0.02*	5.3	2.00	10.2	1.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	15 May 2023	0902_MW074_230515	Normal	ES2316196		**1.94**	*10.6*	54.6	**65.2**	110	8.61	9.90	1.33	*<0.02*	6.5	2.63	13.0	1.45	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	08 May 2023	0902_MW075_230508	Normal	ES2316196		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	08 May 2023	0902_QC100_230508	Field_D	ES2316196		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	08 May 2023	0902_QC200_230508	Interlab_D	323268		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW076	10 May 2023	0902_MW076_230510	Normal	ES2316196		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW076	10 May 2023	0902_QC110_230510	Field_D	ES2316196		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW076	10 May 2023	0902_QC210_230510	Interlab_D	323268		*<0.01*	*<0.01*	0.04	0.04	0.05	0.01	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW077	10 May 2023	0902_MW077_230510	Normal	ES2316196		*<0.01*	*0.04*	0.02	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	11 May 2023	0902_MW078_230511	Normal	ES2316196		*<0.01*	*0.03*	0.30	**0.33**	0.53	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	0.04	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	10 May 2023	0902_MW079_230510	Normal	ES2316196		0.05	*1.04*	1.39	**2.43**	3.06	0.14	0.15	0.04	*<0.02*	*<0.1*	0.04	0.19	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	10 May 2023	0902_QC111_230510	Field_D	ES2316196		0.06	*1.52*	1.62	**3.14**	3.93	0.18	0.19	0.05	*<0.02*	*<0.1*	0.06	0.22	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	10 May 2023	0902_QC211_230510	Interlab_D	323268		0.05	*0.93*	1.7	**2.7**	3.4	0.16	0.18	0.04	*<0.02*	0.06	0.06	0.22	0.03	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW080	08 May 2023	0902_MW080_230508	Normal	ES2316196		0.17	*2.87*	3.62	**6.49**	8.94	0.53	0.64	0.27	*<0.02*	*<0.1*	0.17	0.59	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	09 May 2023	0902_MW081_230509	Normal	ES2316196		*<0.01*	*0.04*	0.02	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW082	09 May 2023	0902_MW082_230509	Normal	ES2316196		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	10 May 2023	0902_MW091_230510	Normal	ES2316196		*<0.01*	*0.04*	0.03	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	10 May 2023	0902_MW092_230510	Normal	ES2316196		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	08 May 2023	0902_MW106_230508	Normal	ES2316196		0.05	*0.86*	1.28	**2.14**	2.92	0.18	0.22	0.09	*<0.02*	*<0.1*	0.05	0.17	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107D	08 May 2023	0902_MW107D_230508	Normal	ES2316196		**0.63**	*4.53*	5.20	**9.73**	15.2	0.86	0.95	0.42	*<0.02*	0.2	0.44	1.65	0.29	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107D	08 May 2023	0902_QC102_230508	Field_D	ES2316196		0.22	*1.88*	3.19	**5.07**	7.25	0.36	0.46	0.17	*<0.02*	*<0.1*	0.14	0.72	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107D	08 May 2023	0902_QC202_230508	Interlab_D	323268		0.13	*0.89*	2.8	**3.7**	5.4	0.29	0.33	0.12	*<0.02*	0.06	0.1	0.55	0.07	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW107I	09 May 2023	0902_MW107I_230509	Normal	ES2316196		**6.91**	*70.2*	61.8	**132**	197	10.8	11.7	3.23	*<0.02*	3.5	5.36	20.1	3.84	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW108	08 May 2023	0902_MW108_230508	Normal	ES2316196		0.01	*0.10*	0.50	**0.60**	1.02	0.14	0.12	*<0.02*	*<0.02*	*<0.1*	0.03	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW109	08 May 2023	0902_MW109_230508	Normal	ES2316196		0.17	*3.62*	2.44	**6.06**	7.78	0.32	0.38	0.14	*<0.02*	*<0.1*	0.12	0.50	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW110	08 May 2023	0902_MW110_230508	Normal	ES2316196		0.06	*0.15*	1.96	**2.11**	3.49	0.33	0.39	0.04	*<0.02*	*<0.1*	0.09	0.42	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW111	11 May 2023	0902_MW111_230511	Normal	ES2316196		*<0.01*	*<0.01*	0.11	**0.11**	0.39	0.09	0.05	*<0.02*	*<0.02*	*<0.1*	0.02	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW112	11 May 2023	0902_MW112_230511	Normal	ES2316196		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW113	11 May 2023	0902_MW113_230511	Normal	ES2316196		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW114	11 May 2023	0902_MW114_230511	Normal	ES2316196		*<0.01*	*<0.01*	0.17	**0.17**	0.25	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T5 - Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.05	0.01	0.01	0.02	0.02	0.02	0.05	0.02	0.05	0.05	0.02	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report Number**																														
MW143	10 May 2023	0902_MW143_230510	Normal	ES2316196		0.01	*0.58*	0.11	**0.69**	0.73	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW143	10 May 2023	0902_QC112_230510	Field_D	ES2316196		0.01	*0.76*	0.14	**0.90**	1.01	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW143	10 May 2023	0902_QC212_230510	Interlab_D	323268		0.01	*0.65*	0.17	**0.81**	0.93	0.03	0.02	0.01	*<0.02*	*<0.02*	*<0.02*	0.04	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW143*	09 Jun 2023	0902_MW143_230609	Normal	ES2319454		0.01	*0.70*	0.13	**0.83**	0.89	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW144	10 May 2023	0902_MW144_230510	Normal	ES2316196		*<0.01*	*0.01*	0.05	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW144*	09 Jun 2023	0902_MW144_230609	Normal	ES2319454		*<0.01*	*0.02*	0.07	**0.09**	0.12	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first-time detection above LOR
	Denotes new exceedence of human health and/or ecological screening criteria
*	Locations resampled

Table T6 - Surface Water Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.05	0.01	0.01	0.02	0.02	0.02	0.05	0.02	0.05	0.05	0.02	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report Number**																															
SW001	08 May 2023	0902_SW001_230508	Normal	ES2316196		3.69	*17.0*	3.12	**20.1**	54.6	0.56	0.50	0.43	0.17	1.3	2.68	4.14	2.89	3.60	3.28	1.63	1.06	0.19	0.15	<0.05	0.96	7.09	0.12	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	08 May 2023	0902_SW002_230508	Normal	ES2316196		0.30	*8.65*	3.13	**11.8**	14.8	0.50	0.48	0.26	<0.02	0.1	0.23	0.82	0.16	0.03	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW003	08 May 2023	0902_SW003_230508	Normal	ES2316196		0.39	*9.42*	3.87	**13.3**	17.4	0.66	0.64	0.31	0.02	0.2	0.33	1.08	0.20	0.09	0.07	0.03	<0.02	<0.02	<0.05	<0.05	0.06	0.07	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	11 May 2023	0902_SW005_230511	Normal	ES2316196		<0.01	*0.20*	0.08	0.28	0.28	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	11 May 2023	0902_SW007_230511	Normal	ES2316196		<0.01	*0.06*	0.10	0.16	0.19	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	11 May 2023	0902_SW008_230511	Normal	ES2316196		<0.01	*0.12*	0.04	0.16	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	11 May 2023	0902_SW009_230511	Normal	ES2316196		0.02	*0.63*	0.17	0.80	0.90	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW011	11 May 2023	0902_SW011_230511	Normal	ES2316196		0.04	*2.02*	0.40	**2.42**	2.80	0.06	0.04	0.03	<0.02	<0.1	0.04	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	11 May 2023	0902_SW013_230511	Normal	ES2316196		0.04	*0.38*	0.76	1.14	1.58	0.13	0.11	<0.02	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	11 May 2023	0902_SW014_230511	Normal	ES2316196		0.02	*0.45*	0.23	0.68	0.74	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	10 May 2023	0902_SW015_230510	Normal	ES2316196		<0.01	*0.16*	0.23	0.39	0.46	0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015*	09 Jun 2023	0902_SW015_230609	Normal	ES2319454		<0.01	*0.14*	0.09	0.23	0.23	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	10 May 2023	0902_SW016_230510	Normal	ES2316196		<0.01	*0.05*	0.01	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016*	09 Jun 2023	0902_SW016_230609	Normal	ES2319454		0.02	*0.23*	0.19	0.42	0.53	0.04	0.03	<0.02	<0.02	<0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	10 May 2023	0902_QC109_230510	Field_D	ES2316196		<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	10 May 2023	0902_QC209_230510	Interlab_D	323268		<0.01	*0.02*	0.02	0.04	0.04	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW018	10 May 2023	0902_SW018_230510	Normal	ES2316196		<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	10 May 2023	0902_SW019_230510	Normal	ES2316196		<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	10 May 2023	0902_SW020_230510	Normal	ES2316196		<0.01	*0.04*	0.02	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	09 May 2023	0902_QC105_230509	Field_D	ES2316196		<0.01	*0.02*	0.05	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	09 May 2023	0902_QC205_230509	Interlab_D	323268		<0.01	*0.04*	0.08	0.11	0.14	0.01	<0.01	<0.01	<0.02	<0.02	<0.02	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW022	09 May 2023	0902_SW022_230509	Normal	ES2316196		<0.01	*0.04*	0.07	0.11	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	10 May 2023	0902_SW023_230510	Normal	ES2316196		0.01	*0.17*	0.08	0.25	0.28	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	09 May 2023	0902_QC107_230509	Field_D	ES2316196		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	09 May 2023	0902_QC207_230509	Interlab_D	323268		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW024	09 May 2023	0902_SW024_230509	Normal	ES2316196		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	10 May 2023	0902_SW030_230510	Normal	ES2316196		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	09 May 2023	0902_SW035_230509	Normal	ES2316196		<0.01	*0.04*	0.04	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW037	08 May 2023	0902_SW037_230508	Normal	ES2316196		0.03	*0.74*	0.17	0.91	1.01	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first-time detection above LOR
	Denotes new exceedence of human health and/or ecological screening criteria
*	Locations resampled

Table T7 - Sediment Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids			
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR						0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0002	0.0002
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report Number**																								
SD001	08 May 2023	0902_SD001_230508	Normal	ES2316196		0.0037	0.599	0.0032	0.602	1.47	0.0004	0.0003	0.0025	0.0214	<0.001	0.0016	0.0020	0.0015	0.0230	0.137	0.199	0.193	0.0419	0.0285	<0.0005	0.0039	0.174	0.0254
SD001	08 May 2023	0902_QC101_230508	Field_D	ES2316196		0.103	13.9	0.0995	14.0	42.3	0.0043	0.0068	0.0517	0.477	<0.012	0.0122	0.0257	0.0324	0.597	3.85	8.25	6.90	1.50	0.679	<0.0025	0.114	4.99	0.562
SD001	08 May 2023	0902_QC201_230508	Interlab_D	323268		0.017	1.7	0.017	1.8	5.6	0.0011	0.0013	0.0057	0.071	0.0020	0.0036	0.0058	0.0054	0.063	0.46	0.85	1.1	0.25	0.19	<0.0001	0.027	0.71	0.056
SD002	08 May 2023	0902_SD002_230508	Normal	ES2316196		0.0006	0.186	0.0046	0.191	0.242	0.0005	0.0005	0.0018	0.0059	<0.001	0.0004	0.0006	<0.0002	0.0004	0.0015	0.0022	0.0055	0.0022	0.0019	<0.0005	<0.0005	0.0018	0.0011
SD003	08 May 2023	0902_SD003_230508	Normal	ES2316196		0.0016	0.628	0.0204	0.648	0.719	0.0019	0.0022	0.0067	0.0069	0.001	0.0011	0.0027	<0.0002	0.0012	0.0033	0.0062	0.0171	0.0028	0.0018	<0.0005	0.0007	0.0048	0.0014
SD005	11 May 2023	0902_SD005_230511	Normal	ES2316196		<0.0002	0.0040	0.0002	0.0042	0.0042	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD007	11 May 2023	0902_SD007_230511	Normal	ES2316196		<0.0002	0.0010	<0.0002	0.0010	0.0010	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD008	11 May 2023	0902_SD008_230511	Normal	ES2316196		<0.0002	0.0406	0.0007	0.0413	0.0465	<0.0002	<0.0002	0.0002	0.0032	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	0.0008	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD009	11 May 2023	0902_SD009_230511	Normal	ES2316196		0.0002	0.0182	0.0013	0.0195	0.0227	<0.0002	<0.0002	0.0004	0.0008	<0.001	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	0.0007	0.0004	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD011	11 May 2023	0902_SD011_230511	Normal	ES2316196		<0.0002	0.0360	0.0019	0.0379	0.0392	<0.0002	<0.0002	0.0003	0.0007	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	11 May 2023	0902_SD013_230511	Normal	ES2316196		<0.0002	0.0040	0.0012	0.0052	0.0052	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	11 May 2023	0902_SD014_230511	Normal	ES2316196		<0.0002	0.0038	0.0003	0.0041	0.0041	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	10 May 2023	0902_SD015_230510	Normal	ES2316196		<0.0002	0.0110	0.0008	0.0118	0.0125	<0.0002	<0.0002	<0.0002	0.0007	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	10 May 2023	0902_SD016_230510	Normal	ES2316196		<0.0002	0.0042	0.0005	0.0047	0.0047	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	10 May 2023	0902_SD018_230510	Normal	ES2316196		<0.0002	0.0002	<0.0002	0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	10 May 2023	0902_SD019_230510	Normal	ES2316196		<0.0002	0.0005	<0.0002	0.0005	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	10 May 2023	0902_SD020_230510	Normal	ES2316196		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	09 May 2023	0902_SD022_230509	Normal	ES2316196		<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	10 May 2023	0902_SD023_230510	Normal	ES2316196		<0.0002	0.0004	<0.0002	0.0004	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	09 May 2023	0902_SD024_230509	Normal	ES2316196		<0.0002	0.0005	<0.0002	0.0005	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	10 May 2023	0902_SD030_230510	Normal	ES2316196		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	10 May 2023	0902_QC108_230510	Field_D	ES2316196		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	10 May 2023	0902_QC208_230510	Interlab_D	323268		<0.0001	0.0001	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD035	09 May 2023	0902_SD035_230509	Normal	ES2316196		<0.0002	0.0008	<0.0002	0.0008	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	09 May 2023	0902_QC106_230509	Field_D	ES2316196		<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	09 May 2023	0902_QC206_230509	Interlab_D	323268		<0.0001	0.0007	<0.0001	0.0007	0.0007	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first-time detection above LOR

					PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report Number**							
SD001	08 May 2023	0902_SD001_230508	Normal	ES2316196	0.0065	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD001	08 May 2023	0902_QC101_230508	Field_D	ES2316196	0.149	*<0.0062*	*<0.0025*	*<0.0062*	*<0.0062*	*<0.0025*	*<0.0062*
SD001	08 May 2023	0902_QC201_230508	Interlab_D	323268	0.017	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*
SD002	08 May 2023	0902_SD002_230508	Normal	ES2316196	0.0240	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	08 May 2023	0902_SD003_230508	Normal	ES2316196	0.0071	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	11 May 2023	0902_SD005_230511	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD007	11 May 2023	0902_SD007_230511	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD008	11 May 2023	0902_SD008_230511	Normal	ES2316196	0.0005	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD009	11 May 2023	0902_SD009_230511	Normal	ES2316196	0.0003	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD011	11 May 2023	0902_SD011_230511	Normal	ES2316196	0.0003	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD013	11 May 2023	0902_SD013_230511	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD014	11 May 2023	0902_SD014_230511	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD015	10 May 2023	0902_SD015_230510	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD016	10 May 2023	0902_SD016_230510	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD018	10 May 2023	0902_SD018_230510	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD019	10 May 2023	0902_SD019_230510	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD020	10 May 2023	0902_SD020_230510	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD022	09 May 2023	0902_SD022_230509	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	10 May 2023	0902_SD023_230510	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD024	09 May 2023	0902_SD024_230509	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	10 May 2023	0902_SD030_230510	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	10 May 2023	0902_QC108_230510	Field_D	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	10 May 2023	0902_QC208_230510	Interlab_D	323268	*<0.001*	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*
SD035	09 May 2023	0902_SD035_230509	Normal	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	09 May 2023	0902_QC106_230509	Field_D	ES2316196	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	09 May 2023	0902_QC206_230509	Interlab_D	323268	*<0.001*	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
	Denotes first-time detection above LOR

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW001	03 Jul 2017	0902_MW01_030717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	0.11	**0.11**	0.17	0.04	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	08 Nov 2019	0902_MW001_191108	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.10	**0.10**	0.16	0.03	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	14 May 2020	0902_MW001_200514	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.13	**0.13**	0.18	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	12 Nov 2020	0902_MW001_201112	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.11	**0.11**	0.14	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	12 Nov 2020	0902_QC106_201112	Field_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.09	**0.09**	0.13	0.02	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	06 May 2021	0902_MW001_210506	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.12	**0.12**	0.19	0.04	0.03	*<0.02*	*<0.02*	*<0.10*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	29 Nov 2021	0902_MW001_211129	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.12	**0.12**	0.17	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	29 Nov 2021	0902_QC112_211129	Field_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.14	**0.14**	0.21	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	26 May 2022	0902_MW001_220526	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.12	**0.12**	0.14	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	11 Nov 2022	0902_MW001_221111	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.10	**0.10**	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	11 May 2023	0902_MW001_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	0.10	**0.10**	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	03 Jul 2017	0902_MW02_030717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	08 Nov 2019	0902_MW002_191108	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	14 May 2020	0902_MW002_200514	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	14 May 2020	0902_QC205_200514	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*<0.02*	*<0.01*	-	-	*<0.01*	*<0.01*	*<0.01*	*<0.01*	0.16	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW002	12 Nov 2020	0902_MW002_201112	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	12 Nov 2020	0902_QC203_201112	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*<0.02*	*<0.01*	-	-	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW002	06 May 2021	0902_MW002_210506	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.10*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	29 Nov 2021	0902_MW002_211129	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	29 Nov 2021	0902_QC212_211129	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW002	26 May 2022	0902_MW002_220526	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	11 Nov 2022	0902_MW002_221111	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	11 May 2023	0902_MW002_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW004	07 Jul 2017	0902_MW04_070717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW004	25 Nov 2021	0902_MW004_211125	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW004	26 May 2022	0902_MW004_220526	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW004	11 Nov 2022	0902_MW004_221111	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW004	11 May 2023	0902_MW004_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	07 Jul 2017	0902_MW05_070717	Normal	NSW_0902_PFAS		0.18	*2.37*	6.76	**9.13**	11.5	0.62	0.53	0.17	*<0.02*	0.2	0.10	0.45	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	08 Nov 2019	0902_MW005_191108	Normal	NSW_0902_PFASOMP		*<0.05*	*0.18*	0.58	**0.76**	0.87	0.06	0.05	*<0.05*	*<0.05*	*<0.2*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW005	13 May 2020	0902_MW005_200513	Normal	NSW_0902_PFASOMP		*<0.01*	*0.12*	0.38	**0.50**	0.56	0.03	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	14 May 2020	0902_QC203_200514	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*0.055*	0.18	-	-	0.014	0.013	*<0.01*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW005	12 Nov 2020	0902_MW005_201112	Normal	NSW_0902_PFASOMP		*<0.01*	*0.13*	0.44	**0.57**	0.62	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	12 Nov 2020	0902_QC103_201112	Field_D	NSW_0902_PFASOMP		*<0.01*	*0.13*	0.33	**0.46**	0.53	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	06 May 2021	0902_MW005_210506	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.10	**0.14**	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	25 Nov 2021	0902_MW005_211125	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.08	**0.12**	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	26 May 2022	0902_MW005_220526	Normal	NSW_0902_PFASOMP		*<0.01*	*0.10*	0.04	**0.14**	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	11 Nov 2022	0902_MW005_221111	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.05	**0.08**	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	11 May 2023	0902_MW005_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.03*	0.03	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	10 Jul 2017	0902_MW07_100717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	0.16	**0.16**	0.23	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	13 Nov 2019	0902-MW007_191113	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.04	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	11 May 2020	0902_MW007_200511	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.08	**0.08**	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	10 Nov 2020	0902_MW007_201110	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	03 May 2021	0902_MW007_210503	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.09	**0.09**	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	03 May 2021	0902_QC100_210503	Field_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.10	**0.10**	0.12	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	23 Nov 2021	0902_MW007_211123	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.05	0.05	0.07	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	25 May 2022	0902_MW007_220525	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.07	**0.08**	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	02 Nov 2022	0902_MW007_221102	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	15 May 2023	0902_MW007_230515	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW008	30 Jun 2017	0902_MW08_300617	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	0.18	**0.18**	0.27	0.05	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW008	14 Nov 2019	0902_MW008_191114	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.16	**0.16**	0.43	0.11	0.08	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW008	11 May 2020	0902_MW008_200511	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.30	**0.30**	0.96	0.11	0.09	*<0.02*	*<0.02*	0.4	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW008	10 Nov 2020	0902_MW008_201110	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.26	**0.26**	0.55	0.11	0.10	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
MW008	10 Nov 2020	0902_QC200_201110	Interlab_D	NSW_0902_PFASOMP			*<0.01*	*<0.02*	0.23	-	-	0.096	0.076	*<0.01*	*<0.01*	*<0.05*	*<0.02*	0.066	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW008	03 May 2021	0902_MW008_210503	Normal	NSW_0902_PFASOMP			*<0.01*	*0.02*	0.31	**0.33**	0.81	0.16	0.13	*<0.02*	*<0.02*	*<0.1*	0.03	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW008	23 Nov 2021	0902_MW008_211123	Normal	NSW_0902_PFASOMP			*<0.01*	*0.05*	0.56	**0.61**	1.05	0.20	0.12	*<0.02*	*<0.02*	*<0.1*	0.02	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW008	23 Nov 2021	0902_QC102_211123	Field_D	NSW_0902_PFASOMP			*<0.01*	*0.06*	0.77	**0.83**	1.34	0.22	0.15	*<0.02*	*<0.02*	*<0.1*	0.02	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW008	25 May 2022	0902_MW008_220525	Normal	NSW_0902_PFASOMP			*<0.01*	*0.07*	0.43	**0.50**	0.78	0.11	0.10	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW008	25 May 2022	0902_QC201_220525	Interlab_D	NSW_0902_PFASOMP			*<0.01*	*0.07*	0.53	**0.60**	0.97	0.14	0.12	*<0.01*	*<0.02*	0.03	*<0.02*	0.07	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW008	02 Nov 2022	0902_MW008_221102	Normal	NSW_0902_PFASOMP			*<0.01*	*0.37*	0.31	**0.68**	0.97	0.09	0.09	*<0.02*	*<0.02*	*<0.1*	0.02	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW008	02 Nov 2022	0902_QC100_221102	Field_D	NSW_0902_PFASOMP			*<0.01*	*0.39*	0.40	**0.79**	1.10	0.11	0.10	*<0.02*	*<0.02*	*<0.1*	0.02	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW008	02 Nov 2022	0902_QC200_221102	Interlab_D	NSW_0902_PFASOMP			*<0.01*	*0.34*	0.35	**0.69**	1.1	0.09	0.10	*<0.01*	*<0.02*	0.02	*<0.02*	0.06	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.13	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW008	12 May 2023	0902_MW008_230511	Normal	NSW_0902_PFASOMP_23			*<0.01*	*0.08*	0.20	**0.28**	0.47	0.09	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW009	30 Jun 2017	0902_MW09_300617	Normal	NSW_0902_PFAS			*<0.01*	*0.06*	0.10	**0.16**	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW009	03 May 2021	0902_MW009_210503	Normal	NSW_0902_PFASOMP			*<0.01*	*0.15*	0.03	**0.18**	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW009	23 Nov 2021	0902_MW009_211123	Normal	NSW_0902_PFASOMP			*<0.01*	*0.06*	0.02	**0.08**	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW009	25 May 2022	0902_MW009_220525	Normal	NSW_0902_PFASOMP			*<0.01*	*0.12*	0.03	**0.15**	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW009	02 Nov 2022	0902_MW009_221102	Normal	NSW_0902_PFASOMP			*<0.01*	*0.12*	0.04	**0.16**	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW009	12 May 2023	0902_MW009_230511	Normal	NSW_0902_PFASOMP_23			*<0.01*	*0.06*	0.02	**0.08**	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW010	30 Jun 2017	0902_MW10_300617	Normal	NSW_0902_PFAS			0.02	*0.16*	0.56	**0.72**	0.96	0.07	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW010	14 Nov 2019	0902_MW010_191114	Normal	NSW_0902_PFASOMP			0.03	*0.88*	0.41	**1.29**	1.54	0.05	0.05	0.02	*<0.02*	*<0.1*	*<0.02*	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW010	11 May 2020	0902_MW010_200511	Normal	NSW_0902_PFASOMP			0.21	*7.62*	3.41	**11.0**	13.6	0.49	0.44	0.15	*<0.02*	*<0.1*	0.19	1.04	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW010	10 Nov 2020	0902_MW010_201110	Normal	NSW_0902_PFASOMP			*<0.01*	*0.33*	0.20	**0.53**	0.64	0.03	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW010	03 May 2021	0902_MW010_210503	Normal	NSW_0902_PFASOMP			0.19	*4.67*	3.47	**8.14**	11.2	0.54	0.54	0.12	*<0.02*	0.1	0.22	1.19	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.09	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW010	23 Nov 2021	0902_MW010_211123	Normal	NSW_0902_PFASOMP			*<0.01*	*0.16*	0.16	**0.32**	0.45	0.04	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW010	25 May 2022	0902_MW010_220525	Normal	NSW_0902_PFASOMP			0.32	*5.60*	4.70	**10.3**	14.5	0.66	0.69	0.16	*<0.02*	0.1	0.31	1.81	0.16	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW010	02 Nov 2022	0902_MW010_221102	Normal	NSW_0902_PFASOMP			0.23	*3.01*	4.20	**7.21**	10.3	0.49	0.63	0.11	*<0.02*	*<0.1*	0.19	1.34	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW010	12 May 2023	0902_MW010_230511	Normal	NSW_0902_PFASOMP_23			0.01	*0.12*	0.13	**0.25**	0.31	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW012	03 Jul 2017	0902_MW12_030717	Normal	NSW_0902_PFAS			0.22	*0.73*	5.91	**6.64**	12.2	2.14	1.21	0.10	*<0.02*	*<0.1*	0.42	1.34	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW012	03 Jul 2017	0902_QC103_030717	Field_D	NSW_0902_PFAS			0.22	*0.73*	5.99	**6.72**	12.4	2.14	1.25	0.11	*<0.02*	*<0.1*	0.42	1.36	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW012	08 Nov 2019	0902_MW012_191108	Normal	NSW_0902_PFASOMP			**0.99**	*13.8*	21.6	**35.4**	46.6	1.87	2.80	0.84	*<0.02*	0.3	0.64	3.10	0.52	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW012	14 May 2020	0902_MW012_200514	Normal	NSW_0902_PFASOMP			**1.01**	*7.98*	23.0	**31.0**	47.1	3.20	4.11	1.03	0.02	0.5	0.94	4.53	0.71	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW012	12 Nov 2020	0902_MW012_201112	Normal	NSW_0902_PFASOMP			**0.78**	*5.65*	21.4	**27.0**	38.2	2.54	2.73	0.63	*<0.02*	0.3	0.72	2.96	0.46	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW012	12 Nov 2020	0902_QC206_201112	Interlab_D	NSW_0902_PFASOMP			0.44	*2.7*	10	-	-	1.7	1.5	0.21	*<0.01*	0.31	0.48	2	0.29	0.017	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	0.015	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW012	06 May 2021	0902_MW012_210506	Normal	NSW_0902_PFASOMP			0.34	*1.47*	9.97	**11.4**	17.7	1.43	1.63	0.21	*<0.02*	*<0.1*	0.41	1.97	0.27	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW012	06 May 2021	0902_QC103_210506	Field_D	NSW_0902_PFASOMP			0.31	*1.63*	8.90	**10.5**	16.9	1.54	1.72	0.22	*<0.02*	0.3	0.38	1.65	0.29	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW012	29 Nov 2021	0902_MW012_211129	Normal	NSW_0902_PFASOMP			0.12	*0.98*	3.42	**4.40**	6.71	0.63	0.54	0.08	*<0.02*	*<0.1*	0.13	0.72	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW012	27 May 2022	0902_MW012_220527	Normal	NSW_0902_PFASOMP			0.06	*0.41*	2.13	**2.54**	3.88	0.40	0.42	0.04	*<0.02*	*<0.1*	0.08	0.30	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW012	18 Nov 2022	0902_MW012_221118	Normal	NSW_0902_PFASOMP			0.02	*0.19*	1.33	**1.52**	2.30	0.26	0.28	*<0.02*	*<0.02*	*<0.1*	0.04	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW012	11 May 2023	0902_MW012_230511	Normal	NSW_0902_PFASOMP_23			0.03	*0.24*	1.53	**1.77**	2.79	0.41	0.28	0.02	*<0.02*	*<0.1*	0.05	0.20	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW013	03 Jul 2017	0902_MW13_030717	Normal	NSW_0902_PFAS			*<0.01*	*0.08*	1.23	**1.31**	1.97	0.38	0.22	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW013	08 Nov 2019	0902_MW013_191108	Normal	NSW_0902_PFASOMP			*<0.01*	*0.30*	34.9	**35.2**	43.3	2.36	4.48	0.51	*<0.02*	0.1	0.12	0.56	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW013	14 May 2020	0902_MW013_200514	Normal	NSW_0902_PFASOMP			0.08	*0.34*	25.0	**25.3**	32.0	2.11	3.11	0.28	*<0.02*	0.4	0.14	0.52	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW013	12 Nov 2020	0902_MW013_201112	Normal	NSW_0902_PFASOMP			0.12	*0.55*	17.8	**18.4**	22.5	1.37	1.58	0.19	*<0.02*	0.3	0.12	0.42	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW013	06 Apr 2021	0902_QC203_210506	Interlab_D	NSW_0902_PFASOMP			0.015	*0.13*	4.7	-	-	0.52	0.53	0.02	*<0.01*	0.12	0.037	0.13	0.014	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW013	06 May 2021	0902_MW013_210506	Normal	NSW_0902_PFASOMP			0.03	*0.11*	5.64	**5.75**	7.33	0.55	0.65	0.05	*<0.02*	*<0.1*	0.05	0.23	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW013	29 Nov 2021	0902_MW013_211129	Normal	NSW_0902_PFASOMP			0.01	*0.08*	1.85	**1.93**	2.74	0.35	0.28	*<0.02*	*<0.02*	*<0.1*	0.02	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW013	27 May 2022	0902_MW013_220527	Normal	NSW_0902_PFASOMP			0.02	*0.10*	1.92	**2.02**	3.00	0.34	0.27	0.02	*<0.02*	*<0.1*	0.05	0.26	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW013	18 Nov 2022	0902_MW013_221118	Normal	NSW_0902_PFASOMP			0.02	*0.08*	1.78	**1.86**	2.84	0.31	0.32	*<0.02*	*<0.02*	*<0.1*	0.05	0.28	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW013	11 May 2023	0902_MW013_230511	Normal	NSW_0902_PFASOMP_23			0.03	*0.10*	2.15	**2.25**	3.59	0.47	0.33	0.02	*<0.02*	0.1	0.06	0.31	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW014	03 Jul 2017	0902_MW14_030717	Normal	NSW_0902_PFAS			*<0.01*	*0.04*	0.90	**0.94**	1.84	0.44	0.26	*<0.02*	*<0.02*	*<0.1*	0.04	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW014	08 Nov 2019	0902_MW014_191108	Normal	NSW_0902_PFASOMP			0.02	*0.24*	0.14	**0.38**	0.49	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.03	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW014	14 May 2020	0902_MW014_200514	Normal	NSW_0902_PFASOMP			0.01	*<0.01*	1.11	**1.11**	1.96	0.32	0.24	*<0.02*	*<0.02*	*<0.1*	0.04	0.24	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW014	12 Nov 2020	0902_MW014_201112	Normal	NSW_0902_PFASOMP			0.01	*0.07*	1.08	**1.15**	1.87	0.30	0.20	*<0.02*	*<0.02*	*<0.1*	0.04	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW014	06 May 2021	0902_MW014_210506	Normal	NSW_0902_PFASOMP			*<0.01*	*0.07*	1.38	**1.45**	2.49	0.34	0.32	0.02	*<0.02*	*<0.1*	0.05	0.29	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW014	29 Nov 2021	0902_MW014_211129	Normal	NSW_0902_PFASOMP			0.01	*0.06*	1.25	**1.31**	2.33	0.37	0.28	0.02	*<0.02*	*<0.1*	0.04	0.28	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW014	27 May 2022	0902_MW014_220527	Normal	NSW_0902_PFASOMP		0.02	*0.10*	1.56	**1.66**	2.92	0.39	0.39	0.04	*<0.02*	*<0.1*	0.07	0.32	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW014	18 Nov 2022	0902_MW014_221118	Normal	NSW_0902_PFASOMP		0.01	*0.10*	1.27	**1.37**	2.32	0.29	0.29	*<0.02*	*<0.02*	*<0.1*	0.05	0.29	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW014	11 May 2023	0902_MW014_230511	Normal	NSW_0902_PFASOMP_23		0.03	*0.14*	1.59	**1.73**	2.98	0.42	0.32	0.04	*<0.02*	*<0.1*	0.07	0.34	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW015	03 Jul 2017	0902_MW15_030717	Normal	NSW_0902_PFAS		0.20	*3.92*	5.07	**8.99**	12.0	0.95	0.73	0.24	*<0.02*	*<0.1*	0.20	0.64	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW015	08 Nov 2019	0902_MW015_191108	Normal	NSW_0902_PFASOMP		0.18	*3.73*	4.38	**8.11**	10.7	0.55	0.68	0.25	*<0.02*	*<0.1*	0.14	0.70	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW015	14 May 2020	0902_MW015_200514	Normal	NSW_0902_PFASOMP		0.06	*<0.01*	1.10	**1.10**	1.72	0.15	0.13	0.06	*<0.02*	*<0.1*	0.03	0.17	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW015	12 Nov 2020	0902_MW015_201112	Normal	NSW_0902_PFASOMP		0.09	*2.02*	2.09	**4.11**	5.05	0.24	0.21	0.09	*<0.02*	*<0.1*	0.05	0.23	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW015	06 May 2021	0902_MW015_210506	Normal	NSW_0902_PFASOMP		0.06	*0.86*	1.33	**2.19**	2.89	0.15	0.17	0.06	*<0.02*	*<0.1*	0.03	0.20	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW015	29 Nov 2021	0902_MW015_211129	Normal	NSW_0902_PFASOMP		0.07	*1.79*	2.05	**3.84**	4.96	0.28	0.28	0.10	*<0.02*	*<0.1*	0.04	0.31	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW015	27 May 2022	0902_MW015_220527	Normal	NSW_0902_PFASOMP		0.13	*3.02*	3.27	**6.29**	8.03	0.41	0.43	0.19	*<0.02*	*<0.1*	0.09	0.43	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW015	18 Nov 2022	0902_MW015_221118	Normal	NSW_0902_PFASOMP		0.12	*3.63*	3.40	**7.03**	8.94	0.42	0.50	0.13	*<0.02*	0.1	0.09	0.50	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW015	11 May 2023	0902_MW015_23011	Normal	NSW_0902_PFASOMP_23		0.17	*4.34*	3.94	**8.28**	10.7	0.63	0.56	0.22	*<0.02*	0.1	0.12	0.53	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW016	07 Jul 2017	0902_MW16_070717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW016	08 Nov 2019	0902_MW016_191108	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW016	14 May 2020	0902_MW016_200514	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW016	12 Nov 2020	0902_MW016_201112	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW016	06 May 2021	0902_MW016_210506	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW016	29 Nov 2021	0902_MW016_211129	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW016	29 Nov 2021	0902_QC110_211129	Field_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW016	26 May 2022	0902_MW016_220526	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	*<0.01*	0.01	0.01	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW016	11 Nov 2022	0902_MW016_221111	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW016	11 May 2023	0902_MW016_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	03 Jul 2017	0902_MW17_030717	Normal	NSW_0902_PFAS		*<0.01*	*1.03*	5.06	**6.09**	7.42	0.68	0.56	0.06	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	08 Nov 2019	0902_MW017_191108	Normal	NSW_0902_PFASOMP		0.04	*1.71*	5.17	**6.88**	8.10	0.37	0.55	0.09	*<0.02*	*<0.1*	*<0.02*	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	14 May 2020	0902_MW017_200514	Normal	NSW_0902_PFASOMP		0.30	*6.92*	12.0	**18.9**	22.7	0.43	0.66	0.42	*<0.02*	0.6	0.21	1.03	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	12 Nov 2020	0902_MW017_201112	Normal	NSW_0902_PFASOMP		0.14	*5.93*	8.78	**14.7**	16.3	0.33	0.39	0.19	*<0.02*	0.1	0.07	0.33	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	06 May 2021	0902_MW017_210506	Normal	NSW_0902_PFASOMP		0.08	*1.90*	7.01	**8.91**	10.4	0.41	0.59	0.15	*<0.02*	*<0.1*	0.05	0.23	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	29 Nov 2021	0902_MW017_211129	Normal	NSW_0902_PFASOMP		0.05	*1.70*	5.60	**7.30**	8.96	0.56	0.59	0.12	*<0.02*	0.2	0.02	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	27 May 2022	0902_MW017_220527	Normal	NSW_0902_PFASOMP		0.04	*1.41*	4.37	**5.78**	7.18	0.46	0.55	0.10	*<0.02*	0.2	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	18 Nov 2022	0902_MW017_221118	Normal	NSW_0902_PFASOMP		0.01	*0.62*	2.17	**2.79**	3.46	0.28	0.33	0.02	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	11 May 2023	0902_MW017_230511	Normal	NSW_0902_PFASOMP_23		0.02	*0.73*	2.02	**2.75**	3.42	0.33	0.27	0.05	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	06 Jul 2017	0902_MW20_060717	Normal	NSW_0902_PFAS		0.22	*0.89*	13.3	**14.2**	16.7	0.71	1.00	0.22	*<0.02*	*<0.1*	*<0.02*	0.30	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	11 Nov 2019	0902_MW020_191111	Normal	NSW_0902_PFASOMP		0.06	*0.29*	3.15	**3.44**	4.34	0.40	0.31	0.05	*<0.02*	*<0.1*	*<0.02*	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	13 May 2020	0902_MW020_200513	Normal	NSW_0902_PFASOMP		0.11	*0.43*	10.0	**10.4**	13.5	0.91	1.04	0.11	*<0.02*	*<0.1*	0.12	0.77	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	09 Nov 2020	0902_MW020_201109	Normal	NSW_0902_PFASOMP		0.09	*0.71*	9.05	**9.76**	12.9	0.79	1.13	0.08	*<0.02*	*<0.1*	0.11	0.87	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	05 May 2021	0902_MW020_210505	Normal	NSW_0902_PFASOMP		0.17	*0.42*	7.30	**7.72**	10.1	0.38	0.62	0.14	*<0.02*	*<0.1*	0.17	0.86	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	24 Nov 2021	0902_MW020_211124	Normal	NSW_0902_PFASOMP		0.24	*1.02*	14.8	**15.8**	18.3	0.41	0.70	0.19	*<0.02*	*<0.1*	0.10	0.79	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	27 May 2022	0902_MW020_220527	Normal	NSW_0902_PFASOMP		0.03	*0.22*	3.32	**3.54**	4.66	0.44	0.46	0.04	*<0.02*	*<0.1*	0.03	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	08 Nov 2022	0902_MW020_221108	Normal	NSW_0902_PFASOMP		0.01	*0.08*	1.89	**1.97**	2.86	0.38	0.44	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	08 May 2023	0902_MW020_230508	Normal	NSW_0902_PFASOMP_23		0.01	*0.05*	1.74	**1.79**	2.67	0.46	0.37	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	06 Jul 2017	0902_MW21_060717	Normal	NSW_0902_PFAS		0.49	*7.16*	8.01	**15.2**	17.8	0.34	0.53	0.28	*<0.02*	*<0.1*	0.15	0.63	0.21	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	11 Nov 2019	0902_MW021_191111	Normal	NSW_0902_PFASOMP		0.42	*5.83*	4.48	**10.3**	12.1	0.16	0.19	0.15	*<0.02*	*<0.1*	0.18	0.54	0.14	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	13 May 2020	0902_MW021_200513	Normal	NSW_0902_PFASOMP		0.46	*4.83*	4.91	**9.74**	12.6	0.21	0.26	0.19	*<0.02*	0.2	0.37	0.95	0.23	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	09 Nov 2020	0902_MW021_201109	Normal	NSW_0902_PFASOMP		0.55	*6.38*	4.16	**10.5**	13.0	0.15	0.27	0.23	*<0.02*	0.1	0.16	0.74	0.23	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	05 May 2021	0902_MW021_210505	Normal	NSW_0902_PFASOMP		0.31	*3.08*	2.43	**5.51**	7.02	0.20	0.13	0.11	*<0.02*	0.1	0.15	0.37	0.09	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	24 Nov 2021	0902_MW021_211124	Normal	NSW_0902_PFASOMP		0.21	*2.76*	1.57	**4.33**	5.34	0.06	0.07	0.05	*<0.02*	*<0.1*	0.12	0.41	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	24 Nov 2021	0902_QC206_211124	Interlab_D	NSW_0902_PFASOMP		0.18	*2.0*	1.3	**3.3**	4.2	0.05	0.07	0.06	*<0.02*	0.06	0.09	0.25	0.07	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW021	27 May 2022	0902_MW021_220527	Normal	NSW_0902_PFASOMP		0.27	*3.64*	2.15	**5.79**	7.15	0.09	0.14	0.10	*<0.02*	0.1	0.15	0.36	0.12	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	08 Nov 2022	0902_MW021_221108	Normal	NSW_0902_PFASOMP		0.40	*3.99*	2.88	**6.87**	8.66	0.12	0.18	0.11	*<0.02*	0.1	0.17	0.53	0.14	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	08 May 2023	0902_MW021_230508	Normal	NSW_0902_PFASOMP_23		0.38	*4.36*	2.66	**7.02**	8.67	0.13	0.14	0.12	*<0.02*	0.1	0.17	0.44	0.13	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	06 Jul 2017	0902_MW22_060717	Normal	NSW_0902_PFAS		0.10	*4.00*	3.05	**7.05**	8.41	0.35	0.44	0.12	*<0.02*	*<0.1*	*<0.02*	0.24	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.05	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	06 Jul 2017	0902_QC202_060717	Interlab_D	NSW_0902_PFAS		0.07	*3.5*	1.8	-	-	0.45	0.52	0.12	*<0.02*	*<0.2*	*<0.02*	0.24	0.02	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.04	0.01	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW022	11 Nov 2019	0902_MW022_191111	Normal	NSW_0902_PFASOMP		**0.91**	*29.4*	10.6	**40.0**	50.0	1.45	1.12	0.74	*<0.02*	0.6	1.22	2.53	0.46	0.40	0.17	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.21	0.11	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW022	13 May 2020	0902_MW022_200513	Normal	NSW_0902_PFASOMP		**1.10**	*18.3*	8.40	**26.7**	37.2	1.17	0.92	0.60	0.04	0.6	1.20	2.96	0.66	0.53	0.22	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.49	*<0.05*	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	13 May 2020	0902_QC104_200513	Field_D	NSW_0902_PFASOMP		**1.00**	*16.8*	7.44	**24.2**	33.7	1.08	0.86	0.55	0.03	0.5	1.08	2.69	0.56	0.48	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.41	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	09 Nov 2020	0902_MW022_201109	Normal	NSW_0902_PFASOMP		0.54	*13.0*	5.40	**18.4**	25.4	1.06	1.01	0.55	0.03	0.4	0.56	2.00	0.35	0.19	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.13	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	05 May 2021	0902_MW022_210505	Normal	NSW_0902_PFASOMP		**0.69**	*8.91*	8.06	**17.0**	23.6	0.88	0.90	0.47	*<0.02*	0.4	0.68	1.87	0.38	0.14	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.14	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	22 Nov 2021	0902_MW022_211122	Normal	NSW_0902_PFASOMP		0.37	*5.60*	5.08	**10.7**	14.3	0.66	0.61	0.33	*<0.02*	0.2	0.24	0.94	0.18	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	30 May 2022	0902_MW022_220530	Normal	NSW_0902_PFASOMP		0.06	*1.67*	2.06	**3.73**	4.71	0.23	0.29	0.08	*<0.02*	*<0.1*	0.05	0.23	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	08 Nov 2022	0902_MW022_221108	Normal	NSW_0902_PFASOMP		0.07	*1.24*	2.39	**3.63**	4.81	0.28	0.34	0.07	*<0.02*	*<0.1*	0.06	0.32	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	08 Nov 2022	0902_QC211_221108	Interlab_D	NSW_0902_PFASOMP		0.06	*0.91*	2.2	**3.1**	4.2	0.27	0.33	0.07	*<0.02*	0.06	0.06	0.23	0.04	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW022	08 May 2023	0902_MW022_230508	Normal	NSW_0902_PFASOMP_23		0.48	*12.0*	10.1	**22.1**	28.6	1.30	1.18	0.44	0.02	0.2	0.69	1.61	0.39	0.13	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	06 Jul 2017	0902_MW23_060717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	0.05	0.05	0.07	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	06 Jul 2017	0902_QC102_060717	Field_D	NSW_0902_PFAS		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	11 Nov 2019	0902_MW023_191111	Normal	NSW_0902_PFASOMP		*<0.01*	*0.14*	0.05	**0.19**	0.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	13 May 2020	0902_MW023_200513	Normal	NSW_0902_PFASOMP		0.02	*0.49*	0.17	**0.66**	0.78	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	09 Nov 2020	0902_MW023_201109	Normal	NSW_0902_PFASOMP		*<0.01*	*0.25*	0.09	**0.34**	0.36	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	05 May 2021	0902_MW023_210505	Normal	NSW_0902_PFASOMP		*<0.01*	*0.18*	0.09	**0.27**	0.29	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	22 Nov 2021	0902_MW023_211122	Normal	NSW_0902_PFASOMP		*<0.01*	*0.11*	0.06	**0.17**	0.19	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	22 Nov 2021	0902_QC200_211122	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*0.13*	0.07	**0.20**	0.21	0.01	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW023	27 May 2022	0902_MW023_220527	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.05	0.07	0.09	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	08 Nov 2022	0902_MW023_221108	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.11	**0.13**	0.21	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	08 May 2023	0902_MW023_230508	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.04*	0.09	**0.13**	0.19	0.04	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW024	10 Jul 2017	0902_MW24_100717	Normal	NSW_0902_PFAS		*<0.01*	*0.37*	0.96	**1.33**	2.88	0.73	0.54	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.28	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW024	14 Nov 2019	0902_MW024_191114	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.03	0.05	0.08	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW024	11 May 2020	0902_MW024_200511	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.04	0.04	0.06	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW024	10 Nov 2020	0902_MW024_201110	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.05	0.06	0.11	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW024	03 May 2021	0902_MW024_210503	Normal	NSW_0902_PFASOMP		*<0.01*	*0.07*	0.27	**0.34**	0.70	0.15	0.10	*<0.02*	*<0.02*	*<0.1*	0.02	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW024	23 Nov 2021	0902_MW024_211123	Normal	NSW_0902_PFASOMP		*<0.01*	*0.06*	0.28	**0.34**	1.00	0.30	0.14	*<0.02*	*<0.02*	*<0.1*	0.04	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW024	25 May 2022	0902_MW024_220525	Normal	NSW_0902_PFASOMP		*<0.01*	*0.12*	0.36	**0.48**	1.02	0.22	0.17	*<0.02*	*<0.02*	*<0.1*	0.03	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW024	02 Nov 2022	0902_MW024_221102	Normal	NSW_0902_PFASOMP		*<0.01*	*0.30*	0.25	**0.55**	0.88	0.10	0.10	*<0.02*	*<0.02*	*<0.1*	0.04	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW024	02 Nov 2022	0902_QC101_221102	Field_D	NSW_0902_PFASOMP		*<0.01*	*0.23*	0.31	**0.54**	0.98	0.15	0.14	*<0.02*	*<0.02*	*<0.1*	0.04	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW024	02 Nov 2022	0902_QC201_221102	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*0.09*	0.39	**0.48**	1.0	0.20	0.19	*<0.01*	*<0.02*	0.03	0.03	0.09	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW024	12 May 2023	0902_MW024_230512	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.03*	0.48	**0.51**	1.18	0.29	0.22	*<0.02*	*<0.02*	*<0.1*	0.03	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	05 Jul 2017	0902_MW25_050717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	0.07	0.07	0.11	0.02	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	13 Nov 2019	0902-MW025_191113	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.05	0.05	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	12 May 2020	0902_MW025_200512	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.05	**0.08**	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	11 Nov 2020	0902_MW025_201111	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.03	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	04 May 2021	0902_MW025_210504	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	22 Nov 2021	0902_MW025_211122	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.03	0.05	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	24 May 2022	0902_MW025_220524	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.05	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	07 Nov 2022	0902_MW025_221107	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.05	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	07 Nov 2022	0902_QC108_221107	Field_D	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.04	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	09 May 2023	0902_MW025_230509	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.11*	0.04	**0.15**	0.23	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	05 Jul 2017	0902_MW26_050717	Normal	NSW_0902_PFAS		0.39	*1.23*	12.7	**13.9**	18.2	1.02	1.31	0.38	*<0.02*	*<0.1*	0.14	0.84	0.23	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	13 Nov 2019	0902-MW026_191113	Normal	NSW_0902_PFASOMP		0.12	*0.41*	2.44	**2.85**	4.12	0.28	0.24	0.11	*<0.02*	*<0.1*	0.08	0.38	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	11 May 2020	0902_MW026_200511	Normal	NSW_0902_PFASOMP		0.10	*0.37*	2.21	**2.58**	3.74	0.22	0.34	0.09	*<0.02*	*<0.1*	0.06	0.30	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	11 Nov 2020	0902_MW026_201111	Normal	NSW_0902_PFASOMP		0.03	*0.18*	0.82	**1.00**	1.40	0.10	0.11	0.03	*<0.02*	*<0.1*	0.02	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	04 May 2021	0902_MW026_210504	Normal	NSW_0902_PFASOMP		0.15	*0.48*	3.16	**3.64**	5.38	0.42	0.40	0.14	*<0.02*	*<0.1*	0.09	0.46	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	22 Nov 2021	0902_MW026_211122	Normal	NSW_0902_PFASOMP		0.18	*0.74*	3.84	**4.58**	7.29	0.78	0.60	0.15	*<0.02*	*<0.1*	0.16	0.73	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	24 May 2022	0902_MW026_220524	Normal	NSW_0902_PFASOMP		0.21	*1.13*	4.82	**5.95**	8.67	0.61	0.80	0.24	*<0.02*	*<0.1*	0.14	0.60	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	07 Nov 2022	0902_MW026_221107	Normal	NSW_0902_PFASOMP		0.10	*0.60*	2.35	**2.95**	4.38	0.36	0.40	0.09	*<0.02*	*<0.1*	0.06	0.36	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	12 May 2023	0902_MW026_230512	Normal	NSW_0902_PFASOMP_23		0.14	*0.52*	3.31	**3.83**	5.60	0.44	0.50	0.13	*<0.02*	*<0.1*	0.08	0.41	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	10 Jul 2017	0902_MW27_100717	Normal	NSW_0902_PFAS		*<0.01*	*0.08*	0.48	**0.56**	0.82	0.11	0.10	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	13 Nov 2019	0902-MW027_191113	Normal	NSW_0902_PFASOMP		0.02	*0.18*	0.92	**1.10**	1.65	0.19	0.17	0.02	*<0.02*	*<0.1*	0.02	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	11 May 2020	0902_MW027_200511	Normal	NSW_0902_PFASOMP		0.02	*0.19*	0.95	**1.14**	1.69	0.19	0.23	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW027	10 Nov 2020	0902_MW027_201110	Normal	NSW_0902_PFASOMP		0.02	*0.22*	0.77	**0.99**	1.51	0.18	0.21	*<0.02*	*<0.02*	*<0.1*	0.02	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	10 Nov 2020	0902_QC101_201110	Field_D	NSW_0902_PFASOMP		0.02	*0.24*	0.87	**1.11**	1.61	0.19	0.20	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	03 May 2021	0902_MW027_210503	Normal	NSW_0902_PFASOMP		0.03	*0.31*	0.98	**1.29**	1.87	0.19	0.18	0.03	*<0.02*	*<0.1*	0.03	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	23 Nov 2021	0902_MW027_211123	Normal	NSW_0902_PFASOMP		0.02	*0.31*	0.97	**1.28**	1.92	0.23	0.17	0.02	*<0.02*	*<0.1*	0.03	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	25 May 2022	0902_MW027_220525	Normal	NSW_0902_PFASOMP		0.02	*0.49*	1.24	**1.73**	2.49	0.23	0.26	0.03	*<0.02*	*<0.1*	0.03	0.17	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	25 May 2022	0902_QC103_220525	Field_D	NSW_0902_PFASOMP		0.03	*0.54*	1.60	**2.14**	3.11	0.30	0.34	0.04	*<0.02*	*<0.1*	0.04	0.19	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	02 Nov 2022	0902_MW027_221102	Normal	NSW_0902_PFASOMP		0.03	*0.49*	1.28	**1.77**	2.58	0.22	0.26	0.03	*<0.02*	*<0.1*	0.04	0.21	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	10 Jul 2017	0902_MW28_100717	Normal	NSW_0902_PFAS		0.10	*0.03*	8.70	**8.73**	23.2	4.32	3.53	*<0.02*	*<0.02*	0.6	0.86	4.38	0.70	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	13 Nov 2019	0902-MW028_191113	Normal	NSW_0902_PFASOMP		0.01	*0.24*	0.10	**0.34**	1.14	0.12	0.03	*<0.02*	*<0.02*	*<0.1*	0.04	0.30	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.28	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	11 May 2020	0902_MW028_200511	Normal	NSW_0902_PFASOMP		0.10	*0.04*	9.46	**9.50**	25.4	3.52	4.13	*<0.02*	*<0.02*	0.6	1.00	5.91	0.67	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	10 Nov 2020	0902_MW028_201110	Normal	NSW_0902_PFASOMP		0.07	*0.04*	6.49	**6.53**	17.2	2.45	2.57	*<0.02*	*<0.02*	0.6	0.86	3.57	0.56	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	03 May 2021	0902_MW028_210503	Normal	NSW_0902_PFASOMP		0.16	*0.04*	12.1	**12.1**	29.2	3.79	4.20	*<0.02*	*<0.02*	0.7	1.31	6.08	0.86	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	23 Nov 2021	0902_MW028_211123	Normal	NSW_0902_PFASOMP		0.07	*0.12*	4.31	**4.43**	10.6	1.70	1.28	*<0.02*	*<0.02*	0.2	0.43	2.18	0.26	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	25 May 2022	0902_MW028_220525	Normal	NSW_0902_PFASOMP		0.14	*0.09*	9.73	**9.82**	19.2	2.12	2.84	0.03	*<0.02*	0.4	0.47	2.87	0.54	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	02 Nov 2022	0902_MW028_221102	Normal	NSW_0902_PFASOMP		0.24	*0.10*	16.5	**16.6**	31.6	2.97	4.49	0.02	*<0.02*	0.5	1.00	5.00	0.74	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	12 May 2023	0902_MW028_230512	Normal	NSW_0902_PFASOMP_23		0.23	*0.07*	11.8	**11.9**	23.4	2.66	2.69	0.05	*<0.02*	0.6	0.90	3.75	0.67	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	14 Nov 2009	0902_QC201_191114	Interlab_D	NSW_0902_PFASOMP		0.11	*0.86*	1.7	-	0.23	0.21	0.043	*<0.01*	0.13	0.048	0.24	0.043	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW030	05 Nov 2013	BH8-8	Normal	ACTNSW_Hist_202009-2		*<0.02*	*0.08*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW030	03 Jul 2017	0902_MW30_030717	Normal	NSW_0902_PFAS		0.18	*1.21*	3.82	**5.03**	6.66	0.52	0.36	0.10	*<0.02*	*<0.1*	0.06	0.34	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	14 Nov 2019	0902_MW030_191114	Normal	NSW_0902_PFASOMP		0.17	*1.06*	2.06	**3.12**	4.44	0.32	0.32	0.07	*<0.02*	*<0.1*	0.06	0.32	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	13 May 2020	0902_MW030_200513	Normal	NSW_0902_PFASOMP		0.19	*1.27*	2.22	**3.49**	4.92	0.35	0.31	0.09	*<0.02*	*<0.1*	0.07	0.35	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	13 May 2020	0902_QC202_200513	Interlab_D	NSW_0902_PFASOMP		0.12	*0.83*	1.6	-	-	0.28	0.26	0.048	*<0.01*	0.084	0.053	0.24	0.053	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW030	11 Nov 2020	0902_MW030_201111	Normal	NSW_0902_PFASOMP		0.20	*1.62*	2.50	**4.12**	5.99	0.36	0.49	0.12	*<0.02*	0.1	0.09	0.42	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	11 Nov 2020	0902_QC102_201111	Field_D	NSW_0902_PFASOMP		0.19	*1.47*	2.42	**3.89**	5.68	0.34	0.49	0.10	*<0.02*	0.1	0.08	0.41	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	03 May 2021	0902_MW030_210503	Normal	NSW_0902_PFASOMP		0.11	*1.07*	1.84	**2.91**	4.06	0.28	0.27	0.07	*<0.02*	*<0.10*	0.06	0.30	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	23 Nov 2021	0902_MW030_211123	Normal	NSW_0902_PFASOMP		0.12	*0.94*	1.57	**2.51**	3.57	0.28	0.21	0.05	*<0.02*	*<0.1*	0.05	0.30	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	23 Nov 2021	0902_QC205_211123	Interlab_D	NSW_0902_PFASOMP		0.09	*0.69*	1.3	**2.0**	2.8	0.20	0.20	0.04	*<0.02*	0.04	0.04	0.20	0.04	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW030	26 May 2022	0902_MW030_220526	Normal	NSW_0902_PFASOMP		0.07	*0.39*	1.03	**1.42**	2.09	0.17	0.18	0.03	*<0.02*	*<0.1*	0.02	0.16	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	11 Nov 2022	0902_MW030_221111	Normal	NSW_0902_PFASOMP		0.12	*0.75*	1.47	**2.22**	3.22	0.25	0.23	0.05	*<0.02*	*<0.1*	0.05	0.25	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	07 Dec 2022	0902_MW030_221207	Normal	NSW_0902_PFASMGMT		0.30	*1.9*	3.1	**5.0**	7.2	0.44	0.47	0.11	*<0.02*	0.1	0.1	0.53	0.11	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW030	08 May 2023	0902_MW030_230508	Normal	NSW_0902_PFASOMP_23		0.05	*0.27*	0.76	**1.03**	1.49	0.13	0.11	*<0.02*	*<0.02*	*<0.1*	0.03	0.12	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW032	04 Jul 2017	0902_MW32_040717	Normal	NSW_0902_PFAS		0.50	*5.98*	25.4	**31.4**	45.4	4.09	4.67	0.64	*<0.02*	*<0.1*	0.53	3.10	0.45	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW032	18 Jun 2019	MW32_180619	Normal	NSW_0902_FSBGME		0.39	*4.70*	13.6	**18.3**	28.2	2.04	2.68	0.56	*<0.02*	0.3	0.53	3.15	0.29	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW032	28 Nov 2019	0902_MW032_191128	Normal	NSW_0902_PFASOMP		0.51	*4.18*	15.6	**19.8**	33.0	2.88	3.73	0.67	*<0.02*	0.3	0.61	4.24	0.32	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW032	11 May 2020	0902_MW032_200512	Normal	NSW_0902_PFASOMP		0.43	*5.97*	15.2	**21.2**	34.0	2.20	4.34	0.71	*<0.02*	1.0	0.52	3.28	0.31	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW032	11 Nov 2020	0902_MW032_201111	Normal	NSW_0902_PFASOMP		0.28	*4.18*	9.14	**13.3**	20.9	1.46	1.78	0.53	*<0.02*	1.0	0.36	1.96	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW032	05 May 2021	0902_MW032_210505	Normal	NSW_0902_PFASOMP		0.20	*0.34*	5.35	**5.69**	9.88	1.10	1.05	0.18	*<0.02*	*<0.1*	0.23	1.26	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW032	24 Nov 2021	0902_MW032_211124	Normal	NSW_0902_PFASOMP		0.39	*4.20*	13.7	**17.9**	29.1	2.51	2.42	0.51	*<0.02*	1.0	0.51	3.56	0.27	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW032	24 May 2022	0902_MW032_220524	Normal	NSW_0902_PFASOMP		0.30	*2.99*	9.51	**12.5**	18.8	1.30	1.92	0.37	*<0.02*	0.5	0.21	1.54	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW032	10 Nov 2022	0902_MW032_221110	Normal	NSW_0902_PFASOMP		0.42	*3.63*	13.1	**16.7**	25.3	2.05	2.09	0.30	*<0.02*	0.6	0.44	2.40	0.25	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW032	15 May 2023	0902_MW032_230515	Normal	NSW_0902_PFASOMP_23		0.35	*3.11*	11.6	**14.7**	22.4	1.87	1.80	0.33	*<0.02*	0.6	0.38	2.10	0.22	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW033	04 Jul 2017	0902_MW33_040717	Normal	NSW_0902_PFAS		0.04	*0.07*	4.77	**4.84**	6.73	0.55	0.65	0.02	*<0.02*	*<0.1*	0.10	0.45	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW033	18 Jun 2019	MW33_180619	Normal	NSW_0902_FSBGME		0.01	*0.05*	1.44	**1.49**	2.26	0.15	0.22	*<0.02*	*<0.02*	*<0.1*	0.06	0.31	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW033	28 Nov 2019	0902_MW033_191128	Normal	NSW_0902_PFASOMP		0.01	*0.07*	0.52	**0.59**	0.78	0.04	0.05	*<0.02*	*<0.02*	*<0.1*	0.02	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW033	11 May 2020	0902_MW033_200512	Normal	NSW_0902_PFASOMP		0.01	*0.14*	0.45	**0.59**	0.78	0.04	0.05	*<0.02*	*<0.02*	*<0.1*	0.02	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW033	11 Nov 2020	0902_MW033_201111	Normal	NSW_0902_PFASOMP		*<0.01*	*0.11*	0.10	**0.21**	0.21	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW033	05 May 2021	0902_MW033_210505	Normal	NSW_0902_PFASOMP		0.36	*3.12*	14.2	**17.3**	27.8	2.05	2.66	0.57	*<0.02*	1.1	0.54	2.91	0.27	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW033	24 Nov 2021	0902_MW033_211124	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.10	**0.12**	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW033	24 May 2022	0902_MW033_220524	Normal	NSW_0902_PFASOMP		0.04	*0.26*	0.03	**0.29**	0.56	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.08	0.07	0.06	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW033	10 Nov 2022	0902_MW033_221110	Normal	NSW_0902_PFASOMP		0.01	*0.25*	0.03	**0.28**	0.31	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW033	15 May 2023	0902_MW033_230515	Normal	NSW_0902_PFASOMP_23		0.02	*0.08*	0.85	**0.93**	1.30	0.10	0.09	*<0.02*	*<0.02*	*<0.1*	0.04	0.10	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW034	04 Jul 2017	0902_MW34_040717	Normal	NSW_0902_PFAS		0.22	*0.50*	7.58	**8.08**	13.0	1.47	1.57	0.22	*<0.02*	*<0.1*	0.18	1.06	0.23	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW034	18 Jun 2019	MW34_180619	Normal	NSW_0902_FSBGME		0.12	*0.26*	3.56	**3.82**	6.77	0.67	0.78	0.13	*<0.02*	*<0.1*	0.16	0.97	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW034	18 Jun 2019	QC104_180619	Field_D	NSW_0902_FSBGME		0.14	*0.27*	3.80	**4.07**	7.03	0.70	0.81	0.13	*<0.02*	*<0.1*	0.17	0.90	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW034	28 Nov 2019	0902_MW034_191128	Normal	NSW_0902_PFASOMP		0.13	*0.29*	3.56	**3.85**	6.50	0.64	0.70	0.12	*<0.02*	*<0.1*	0.15	0.81	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW034	28 Nov 2019	0902_QC112_191128	Field_D	NSW_0902_PFASOMP		0.13	*0.28*	3.77	**4.05**	6.76	0.66	0.73	0.12	*<0.02*	*<0.1*	0.14	0.83	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW034	11 May 2020	0902_MW034_200512	Normal	NSW_0902_PFASOMP		0.15	*0.27*	4.42	**4.69**	8.02	0.74	1.01	0.12	*<0.02*	0.1	0.16	0.92	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW034	11 Nov 2020	0902_MW034_201111	Normal	NSW_0902_PFASOMP		0.28	*1.64*	7.04	**8.68**	13.8	1.00	1.12	0.29	*<0.02*	0.4	0.28	1.53	0.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW034	05 May 2021	0902_MW034_210505	Normal	NSW_0902_PFASOMP		0.02	*0.08*	0.95	**1.03**	1.45	0.09	0.09	*<0.02*	*<0.02*	*<0.1*	0.06	0.14	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW034	24 Nov 2021	0902_MW034_211124	Normal	NSW_0902_PFASOMP		*<0.01*	*0.09*	0.18	**0.27**	0.41	0.05	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW034	24 May 2022	0902_MW034_220524	Normal	NSW_0902_PFASOMP		0.03	*0.16*	0.63	**0.79**	1.30	0.12	0.14	0.03	*<0.02*	*<0.1*	0.03	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW034	10 Nov 2022	0902_MW034_221110	Normal	NSW_0902_PFASOMP		0.06	*0.26*	1.36	**1.62**	2.68	0.26	0.28	0.03	*<0.02*	*<0.1*	0.07	0.31	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW034	15 May 2023	0902_MW034_230515	Normal	NSW_0902_PFASOMP_23		0.16	*0.43*	4.20	**4.63**	8.00	0.81	0.81	0.17	*<0.02*	0.2	0.18	0.91	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW036	06 Jul 2017	0902_MW36_060717	Normal	NSW_0902_PFAS		*<0.01*	*0.06*	0.86	**0.92**	1.48	0.25	0.23	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW036	11 Nov 2019	0902_MW036_191111	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.45	**0.48**	0.74	0.12	0.09	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW036	13 May 2020	0902_MW036_200513	Normal	NSW_0902_PFASOMP		0.01	*0.05*	0.69	**0.74**	1.28	0.20	0.18	*<0.02*	*<0.02*	*<0.1*	0.03	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW036	09 Nov 2020	0902_MW036_201109	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.56	**0.60**	0.97	0.15	0.13	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW036	07 May 2021	0902_MW036_210507	Normal	NSW_0902_PFASOMP		0.01	*0.06*	0.80	**0.86**	1.43	0.20	0.18	*<0.02*	*<0.02*	*<0.1*	0.04	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW036	22 Nov 2021	0902_MW036_211122	Normal	NSW_0902_PFASOMP		0.01	*0.04*	0.60	**0.64**	1.24	0.27	0.14	*<0.02*	*<0.02*	*<0.1*	0.04	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW036	27 May 2022	0902_MW036_220527	Normal	NSW_0902_PFASOMP		0.02	*0.08*	0.97	**1.05**	1.67	0.20	0.21	0.02	*<0.02*	*<0.1*	0.03	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW036	27 May 2022	0902_QC108_220527	Field_D	NSW_0902_PFASOMP		0.02	*0.13*	1.45	**1.58**	2.46	0.26	0.29	0.03	*<0.02*	*<0.1*	0.05	0.20	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW036	08 Nov 2022	0902_MW036_221108	Normal	NSW_0902_PFASOMP		0.04	*0.13*	1.57	**1.70**	2.68	0.27	0.29	0.03	*<0.02*	*<0.1*	0.05	0.27	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW036	08 May 2023	0902_MW036_230508	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.03*	0.41	**0.44**	0.70	0.12	0.08	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW040	10 Jul 2017	0902_MW40_100717	Normal	NSW_0902_PFAS		**9.46**	*872*	97.3	**969**	1,040	10.5	8.60	7.69	2.56	*<0.5*	5.85	24.1	3.05	0.61	0.27	*<0.10*	*<0.10*	*<0.10*	*<0.25*	*<0.10*	0.62	1.21	*<0.10*	*<0.10*	*<0.25*	*<0.10*	*<0.25*	*<0.25*	*<0.10*	*<0.25*
MW040	07 Aug 2017	0902_MW40_170807	Normal	NSW_0902_PFAS		**7.54**	*618*	84.0	**702**	773	7.02	8.29	2.79	0.88	11.8	5.49	20.6	1.46	0.67	0.74	0.05	0.04	*<0.02*	*<0.05*	*<0.05*	0.48	2.02	*<0.05*	1.17	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW040	07 Aug 2017	0902_QC207_170807	Interlab_D	NSW_0902_PFAS		**9.8**	*570*	88	-	-	8.1	8.1	7.4	0.40	3.8	6.2	24	2.8	*<0.05*	0.1	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.46	0.60	0.01	0.5	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW040	13 Nov 2019	0902-MW040_191113	Normal	NSW_0902_PFASOMP		**3.13**	*205*	44.2	**249**	298	7.65	5.64	3.56	1.59	3.7	5.51	15.3	1.46	0.15	0.08	0.05	0.02	*<0.02*	*<0.05*	*<0.05*	0.26	0.40	*<0.05*	0.40	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW040	11 May 2020	0902_MW040_200511	Normal	NSW_0902_PFASOMP		**3.24**	*224*	48.6	**273**	319	4.72	7.14	6.19	3.60	2.0	3.34	13.5	1.46	0.10	0.06	0.05	*<0.05*	*<0.05*	*<0.12*	*<0.05*	0.20	0.30	*<0.05*	0.43	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW040	11 May 2020	0902_QC100_200511	Field_D	NSW_0902_PFASOMP		**3.13**	*216*	42.6	**259**	296	4.44	4.60	4.74	1.20	1.9	3.07	11.7	1.47	0.14	0.06	0.04	0.02	*<0.02*	*<0.05*	*<0.05*	0.19	0.25	*<0.05*	0.46	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW040	10 Nov 2020	0902_MW040_201110	Normal	NSW_0902_PFASOMP		**2.09**	*157*	32.9	**190**	222	5.57	3.95	1.91	1.01	2.8	2.77	10.2	0.99	0.13	0.04	0.03	0.02	*<0.02*	*<0.05*	*<0.05*	0.13	0.12	*<0.05*	0.24	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW040	10 Nov 2020	0902_QC100_201110	Field_D	NSW_0902_PFASOMP		**1.92**	*151*	31.3	**182**	212	5.16	3.62	1.85	0.84	2.7	2.66	9.78	0.85	0.12	0.04	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	0.08	*<0.05*	0.21	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW040	03 May 2021	0902_MW040_210503	Normal	NSW_0902_PFASOMP		**1.23**	*65.2*	22.8	**88.0**	105	2.34	3.24	1.36	0.50	0.8	1.30	5.29	0.53	0.07	0.03	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	0.06	*<0.05*	0.22	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW040	23 Nov 2021	0902_MW040_211123	Normal	NSW_0902_PFASOMP		**2.54**	*74.7*	41.6	**116**	152	6.39	5.61	2.50	0.43	1.3	2.60	12.7	1.35	0.07	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.14	0.05	*<0.05*	0.18	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW040	23 Nov 2021	0902_QC103_211123	Field_D	NSW_0902_PFASOMP		**3.98**	*129*	70.4	**199**	258	10.1	11.0	5.00	0.68	2.0	4.20	19.2	1.97	0.09	0.03	0.03	0.02	*<0.02*	*<0.05*	*<0.05*	0.20	0.07	*<0.05*	0.31	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW040	25 May 2022	0902_MW040_220525	Normal	NSW_0902_PFASOMP		**0.59**	*66.5*	13.1	**79.6**	88.8	1.22	1.83	0.99	1.15	0.4	0.38	2.04	0.26	0.07	0.04	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	0.22	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW040	02 Nov 2022	0902_MW040_221102	Normal	NSW_0902_PFASOMP		**1.32**	*38.1*	34.4	**72.5**	93.6	3.09	4.29	1.72	0.48	0.9	1.30	7.14	0.68	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	0.13	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW040	25 Nov 2022	0902_MW040_221125	Normal	NSW_0902_PFASMGMT		**1.2**	*25*	25	**51**	67	2.9	2.9	1.4	0.26	0.91	1.2	5.4	0.60	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW040	12 May 2023	0902_MW040_230511	Normal	NSW_0902_PFASOMP_23		**1.29**	*54.4*	22.3	**76.7**	92.7	2.44	2.32	1.06	0.40	0.9	1.51	5.01	0.75	0.09	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.05	*<0.05*	*<0.05*	0.18	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW041	13 Nov 2009	0902_QC200_191113	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*0.16*	0.064	-	-	0.012	*<0.01*	*<0.01*	*<0.01*	*<0.05*	*<0.02*	0.013	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW041	10 Jul 2017	0902_MW41_100717	Normal	NSW_0902_PFAS		*<0.01*	*0.09*	0.09	**0.18**	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW041	13 Nov 2019	0902-MW041_191113	Normal	NSW_0902_PFASOMP		*<0.01*	*0.21*	0.08	**0.29**	0.29	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW041	11 May 2020	0902_MW041_200511	Normal	NSW_0902_PFASOMP		*<0.01*	*0.08*	0.19	**0.27**	0.32	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW041	10 Nov 2020	0902_MW041_201110	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.13	**0.17**	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW041	03 May 2021	0902_MW041_210503	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.11	**0.15**	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW041	23 Nov 2021	0902_MW041_211123	Normal	NSW_0902_PFASOMP		*<0.01*	*0.05*	0.08	**0.13**	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW041	23 Nov 2021	0902_QC202_211123	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*0.06*	0.09	**0.14**	0.15	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	0.01	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW041	25 May 2022	0902_MW041_220525	Normal	NSW_0902_PFASOMP		*<0.01*	*0.08*	0.08	**0.16**	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW041	25 May 2022	0902_QC202_220525	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*0.07*	0.09	**0.16**	0.25	0.01	*<0.01*	*<0.02*	0.04	*<0.02*	0.03	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW041	02 Nov 2022	0902_MW041_221102	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.02	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW041	15 May 2023	0902_MW041_230515	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.04*	0.03	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW042	10 Jul 2017	0902_MW42_100717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW042	13 Nov 2019	0902-MW042_191113	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW042	11 May 2020	0902_MW042_200511	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW042	10 Nov 2020	0902_MW042_201110	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	*<0.02*	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW042	03 May 2021	0902_MW042_210503	Normal	NSW_0902_PFASOMP		*<0.01*	*0.16*	0.03	**0.19**	0.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW042	23 Nov 2021	0902_MW042_211123	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
MW042	25 May 2022	0902_MW042_220525	Normal	NSW_0902_PFASOMP		*<0.01*	*0.12*	0.01	**0.13**	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW042	02 Nov 2022	0902_MW042_221102	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	*<0.01*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW042	12 May 2023	0902_MW042_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.10*	0.06	**0.16**	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	10 Jul 2017	0902_MW43_100717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	13 Nov 2019	0902-MW043_191113	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	*<0.02*	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	11 May 2020	0902_MW043_200511	Normal	NSW_0902_PFASOMP		*<0.01*	*0.07*	*<0.02*	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	10 Nov 2020	0902_MW043_201110	Normal	NSW_0902_PFASOMP		*<0.01*	*0.12*	*<0.02*	**0.12**	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	03 May 2021	0902_MW043_210503	Normal	NSW_0902_PFASOMP		*<0.01*	*0.06*	*<0.02*	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	23 Nov 2021	0902_MW043_211123	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.01	0.03	0.11	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	25 May 2022	0902_MW043_220525	Normal	NSW_0902_PFASOMP		*<0.01*	*0.15*	0.02	**0.17**	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	02 Nov 2022	0902_MW043_221102	Normal	NSW_0902_PFASOMP		*<0.01*	*0.13*	0.03	**0.16**	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	15 May 2023	0902_MW043_230515	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.11*	0.02	**0.13**	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	06 Jul 2017	0902_MW45_060717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	0.05	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	13 Nov 2019	0902-MW045_191113	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.04	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	12 May 2020	0902_MW045_200512	Normal	NSW_0902_PFASOMP		*<0.01*	*0.05*	0.06	**0.11**	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	10 Nov 2020	0902_MW045_201110	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.03	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	10 Nov 2020	0902_QC201_201110	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*<0.02*	0.028	-	-	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW045	07 May 2021	0902_MW045_210507	Normal	NSW_0902_PFASOMP		*<0.01*	*0.12*	0.07	**0.19**	0.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	21 Nov 2022	0902_MW045_221121	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.06	**0.09**	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	09 May 2023	0902_MW045_230509	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.04*	0.06	**0.10**	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	06 Jul 2017	0902_MW46_060717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	0.04	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	13 Nov 2019	0902-MW046_191113	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.05	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	12 May 2020	0902_MW046_200512	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.07	**0.11**	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	10 Nov 2020	0902_MW046_201110	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	04 May 2021	0902_MW046_210504	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.04	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	22 Nov 2021	0902_MW046_211122	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	22 Nov 2021	0902_QC201_211122	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.03	0.03	0.04	0.01	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW046	24 May 2022	0902_MW046_220524	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.05	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	07 Nov 2022	0902_MW046_221107	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.05	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	07 Nov 2022	0902_QC208_221107	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.04	0.04	0.13	0.01	0.01	*<0.01*	*<0.02*	*<0.02*	*<0.02*	0.01	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW046	09 May 2023	0902_MW046_230509	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	0.05	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	06 Jul 2017	0902_MW47_060717	Normal	NSW_0902_PFAS		**0.60**	*8.61*	14.0	**22.6**	33.1	4.00	2.71	0.59	*<0.02*	*<0.1*	0.59	1.74	0.23	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	13 Nov 2019	0902-MW047_191113	Normal	NSW_0902_PFASOMP		0.56	*6.87*	13.8	**20.7**	30.6	2.47	2.70	0.59	*<0.02*	0.2	0.50	2.61	0.32	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	11 May 2020	0902_MW047_200511	Normal	NSW_0902_PFASOMP		0.47	*6.80*	11.8	**18.6**	27.1	1.97	2.63	0.61	*<0.02*	0.2	0.41	1.91	0.33	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	10 Nov 2020	0902_MW047_201110	Normal	NSW_0902_PFASOMP		0.34	*3.93*	7.22	**11.2**	17.7	1.36	2.42	0.39	*<0.02*	0.1	0.31	1.35	0.25	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	03 May 2021	0902_MW047_210503	Normal	NSW_0902_PFASOMP		0.37	*3.08*	8.66	**11.7**	18.0	1.55	1.75	0.32	*<0.02*	0.2	0.34	1.44	0.24	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	23 Nov 2021	0902_MW047_211123	Normal	NSW_0902_PFASOMP		0.38	*5.18*	8.85	**14.0**	20.7	1.91	1.64	0.35	*<0.02*	0.1	0.32	1.77	0.22	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	25 May 2022	0902_MW047_220525	Normal	NSW_0902_PFASOMP		0.03	*0.82*	0.60	**1.42**	1.80	0.10	0.12	0.04	*<0.02*	*<0.1*	*<0.02*	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	02 Nov 2022	0902_MW047_221102	Normal	NSW_0902_PFASOMP		0.02	*0.55*	0.56	**1.11**	1.45	0.09	0.11	0.03	*<0.02*	*<0.1*	*<0.02*	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	15 May 2023	0902_MW047_230515	Normal	NSW_0902_PFASOMP_23		0.15	*2.23*	3.63	**5.86**	8.52	0.74	0.77	0.18	*<0.02*	*<0.1*	0.16	0.56	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	05 Jul 2017	0902_MW48_050717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	0.20	**0.20**	0.42	0.07	0.08	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	13 Nov 2019	0902-MW048_191113	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.18	**0.18**	0.42	0.05	0.05	*<0.02*	*<0.02*	*<0.1*	0.02	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	11 May 2020	0902_MW048_200511	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.16	**0.17**	0.36	0.05	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	10 Nov 2020	0902_MW048_201110	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.09	**0.09**	0.23	0.04	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	03 May 2021	0902_MW048_210503	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.12	**0.12**	0.29	0.06	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	23 Nov 2021	0902_MW048_211123	Normal	NSW_0902_PFASOMP		*<0.01*	*0.05*	0.17	**0.22**	0.56	0.10	0.06	*<0.02*	*<0.02*	*<0.1*	0.03	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	25 May 2022	0902_MW048_220525	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.25	**0.25**	0.62	0.10	0.11	*<0.02*	*<0.02*	*<0.1*	0.02	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	02 Nov 2022	0902_MW048_221102	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.37	**0.37**	0.85	0.12	0.13	*<0.02*	*<0.02*	*<0.1*	0.03	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	12 May 2023	0902_MW048_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	0.34	**0.34**	0.82	0.12	0.12	*<0.02*	*<0.02*	*<0.1*	0.04	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	06 Jul 2017	0902_MW50_060717	Normal	NSW_0902_PFAS		**0.90**	*22.1*	8.86	**31.0**	40.0	1.56	1.25	0.62	0.04	0.6	0.69	2.32	0.43	0.04	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.29	0.16	*<0.05*	0.08	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	06 Jul 2017	0902_QC104_060717	Field_D	NSW_0902_PFAS		**0.75**	*17.4*	7.68	**25.1**	32.2	1.74	1.11	0.48	*<0.02*	*<0.1*	0.79	1.68	0.24	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.24	0.09	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	13 Nov 2019	0902-MW050_191113	Normal	NSW_0902_PFASOMP		0.25	*6.07*	1.97	**8.04**	9.94	0.19	0.18	0.16	*<0.02*	0.1	0.24	0.57	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	0.04	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	15 May 2020	0902_MW050_200515	Normal	NSW_0902_PFASOMP		**0.60**	*9.50*	5.84	**15.3**	21.3	0.85	0.88	0.35	0.04	0.3	0.60	1.74	0.32	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.13	0.06	*<0.05*	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW050	15 May 2020	0902_QC107_200515	Field_D	NSW_0902_PFASOMP		0.40	*6.32*	4.14	**10.5**	14.3	0.50	0.68	0.26	*<0.02*	0.2	0.37	1.13	0.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	10 Nov 2020	0902_MW050_201110	Normal	NSW_0902_PFASOMP		0.36	*8.40*	3.20	**11.6**	15.2	0.47	0.56	0.30	0.02	0.2	0.32	1.00	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.19	*<0.05*	*<0.05*	0.04	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	03 May 2021	0902_MW050_210503	Normal	NSW_0902_PFASOMP		0.35	*9.90*	2.95	**12.8**	16.3	0.50	0.42	0.32	*<0.02*	0.2	0.34	0.96	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.15	*<0.05*	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	23 Nov 2021	0902_MW050_211123	Normal	NSW_0902_PFASOMP		0.13	*4.96*	1.30	**6.26**	7.49	0.18	0.14	0.10	*<0.02*	*<0.1*	0.11	0.39	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	23 Nov 2021	0902_QC203_211123	Interlab_D	NSW_0902_PFASOMP		0.12	*4.1*	1.2	**5.3**	6.4	0.14	0.13	0.11	*<0.02*	0.08	0.1	0.29	0.05	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.09	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW050	25 May 2022	0902_MW050_220525	Normal	NSW_0902_PFASOMP		0.37	*10.2*	5.51	**15.7**	21.7	1.15	1.33	0.42	*<0.02*	0.4	0.32	1.57	0.24	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.15	*<0.05*	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	02 Nov 2022	0902_MW050_221102	Normal	NSW_0902_PFASOMP		**0.99**	*24.4*	13.4	**37.8**	54.2	2.94	3.67	1.00	0.03	0.7	1.16	5.04	0.61	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.14	0.05	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	15 May 2023	0902_MW050_230515	Normal	NSW_0902_PFASOMP_23		0.14	*5.04*	1.53	**6.57**	7.90	0.21	0.20	0.17	*<0.02*	*<0.1*	0.16	0.36	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW051	06 Jul 2017	0902_MW51_060717	Normal	NSW_0902_PFAS		**9.69**	*167*	267	**434**	578	33.6	33.9	14.4	*<0.02*	*<0.1*	7.88	38.7	5.31	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW051	13 Nov 2019	0902-MW051_191113	Normal	NSW_0902_PFASOMP		**18.8**	*102*	371	**473**	699	40.4	51.1	23.2	*<0.02*	8.8	13.9	61.3	8.76	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW051	11 May 2020	0902_MW051_200511	Normal	NSW_0902_PFASOMP		**3.37**	*74.4*	71.0	**145**	192	6.68	11.8	6.60	*<0.05*	2.1	2.96	11.3	1.33	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	0.09	*<0.05*	*<0.05*	0.06	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW051	10 Nov 2020	0902_MW051_201110	Normal	NSW_0902_PFASOMP		**0.87**	*37.5*	13.9	**51.4**	61.2	1.48	1.56	0.96	0.05	0.7	0.95	2.73	0.44	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	0.04	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW051	03 Apr 2021	0902_QC200_210503	Interlab_D	NSW_0902_PFASOMP		**14**	*83*	250	-	-	46	39	11	*<0.01*	10	16	68	6.6	0.061	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	0.084	*<0.01*	*<0.01*	0.019	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW051	03 May 2021	0902_MW051_210503	Normal	NSW_0902_PFASOMP		**11.2**	*80.0*	287	**367**	595	36.7	46.5	22.6	0.13	10.7	10.4	85.3	4.20	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW051	23 Nov 2021	0902_MW051_211123	Normal	NSW_0902_PFASOMP		***39.4***	*239*	656	**895**	1,320	78.0	63.5	59.2	0.10	16.1	22.2	130	13.8	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.14	*<0.05*	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW051	25 May 2022	0902_MW051_220525	Normal	NSW_0902_PFASOMP		***34.2***	*274*	519	**793**	1,120	48.5	64.2	64.6	0.07	12.7	12.3	81.5	11.3	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW051	02 Nov 2022	0902_MW051_221102	Normal	NSW_0902_PFASOMP		***65.3***	*660*	1,120	**1,780**	2,470	96.4	149	125	*<0.05*	20.8	36.2	175	21.3	0.50	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	0.24	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW051	15 May 2023	0902_MW051_230515	Normal	NSW_0902_PFASOMP_23		***60.9***	*530*	850	**1,380**	1,900	71.0	103	97.4	*<0.05*	23.5	30.4	120	17.5	0.40	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	0.20	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW052	06 Jul 2017	0902_MW52_060717	Normal	NSW_0902_PFAS		0.31	*0.20*	24.9	**25.1**	65.9	16.9	8.99	0.06	*<0.02*	*<0.1*	3.19	10.8	0.53	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	13 Nov 2019	0902-MW052_191113	Normal	NSW_0902_PFASOMP		0.44	*0.22*	42.8	**43.0**	95.5	12.8	11.5	0.13	*<0.02*	2.1	3.89	20.4	1.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	11 May 2020	0902_MW052_200511	Normal	NSW_0902_PFASOMP		0.40	*0.26*	39.6	**39.9**	93.2	13.4	14.5	0.10	*<0.02*	1.9	3.14	18.7	1.21	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	10 Nov 2020	0902_MW052_201110	Normal	NSW_0902_PFASOMP		0.30	*0.19*	23.9	**24.1**	55.1	7.63	7.56	0.08	*<0.02*	1.5	2.21	11.0	0.75	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	03 May 2021	0902_MW052_210503	Normal	NSW_0902_PFASOMP		0.36	*0.27*	14.2	**14.5**	34.8	5.03	4.54	0.16	*<0.02*	1.8	2.70	4.86	0.90	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	23 Nov 2021	0902_MW052_211123	Normal	NSW_0902_PFASOMP		0.29	*0.33*	21.8	**22.1**	54.6	9.57	5.50	0.12	*<0.02*	1.4	2.20	12.7	0.67	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	25 May 2022	0902_MW052_220525	Normal	NSW_0902_PFASOMP		0.04	*0.71*	0.82	**1.53**	2.49	0.25	0.24	0.04	*<0.02*	*<0.1*	0.05	0.32	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	02 Nov 2022	0902_MW052_221102	Normal	NSW_0902_PFASOMP		0.03	*0.42*	1.39	**1.81**	3.65	0.43	0.46	0.02	*<0.02*	*<0.1*	0.14	0.72	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	15 May 2023	0902_MW052_230515	Normal	NSW_0902_PFASOMP_23		0.22	*2.11*	6.28	**8.39**	15.6	1.69	1.66	0.30	*<0.02*	0.3	0.54	2.33	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	03 Jul 2017	0902_MW53_030717	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	0.35	**0.35**	0.74	0.16	0.11	*<0.02*	*<0.02*	*<0.1*	0.04	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	14 Nov 2019	0902_MW053_191114	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.08	**0.12**	0.17	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	13 May 2020	0902_MW053_200513	Normal	NSW_0902_PFASOMP		0.09	*0.17*	0.76	**0.93**	1.62	0.12	0.11	0.03	*<0.02*	*<0.1*	0.08	0.21	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	11 Nov 2020	0902_MW053_201111	Normal	NSW_0902_PFASOMP		0.07	*0.13*	0.67	**0.80**	1.37	0.11	0.11	0.02	*<0.02*	*<0.1*	0.07	0.15	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	11 Nov 2020	0902_QC202_201111	Interlab_D	NSW_0902_PFASOMP		0.05	*0.083*	0.48	-	-	0.078	0.079	0.012	*<0.01*	*<0.05*	0.052	0.12	0.036	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW053	03 May 2021	0902_MW053_210503	Normal	NSW_0902_PFASOMP		0.07	*0.09*	0.18	**0.27**	1.26	0.09	0.03	*<0.02*	*<0.02*	0.2	0.24	0.29	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	24 Nov 2021	0902_MW053_211124	Normal	NSW_0902_PFASOMP		0.04	*0.08*	0.12	**0.20**	0.52	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.08	0.14	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	26 May 2022	0902_MW053_220526	Normal	NSW_0902_PFASOMP		0.13	*0.12*	0.35	**0.47**	1.28	0.05	0.04	*<0.02*	*<0.02*	0.2	0.09	0.20	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	10 Nov 2022	0902_MW053_221110	Normal	NSW_0902_PFASOMP		0.10	*0.03*	2.00	**2.03**	2.98	0.20	0.29	*<0.02*	*<0.02*	*<0.1*	0.06	0.24	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	09 May 2023	0902_MW053_230509	Normal	NSW_0902_PFASOMP_23		0.56	*0.06*	15.3	**15.4**	26.0	3.14	2.39	0.07	*<0.02*	0.4	0.68	2.88	0.56	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	30 Jun 2017	0902_MW54_300617	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	0.09	**0.09**	0.18	0.06	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	14 Nov 2019	0902_MW054_191114	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.15	**0.15**	0.31	0.10	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	13 May 2020	0902_MW054_200513	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.29	**0.31**	0.97	0.38	0.08	*<0.02*	*<0.02*	*<0.1*	0.05	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	11 Nov 2020	0902_MW054_201111	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.24	**0.24**	0.48	0.13	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	04 May 2021	0902_MW054_210504	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.17	**0.17**	0.37	0.11	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	24 Nov 2021	0902_MW054_211124	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.16	**0.18**	0.36	0.14	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	24 May 2022	0902_MW054_220524	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.22	**0.22**	0.41	0.09	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	24 May 2022	0902_QC100_220524	Field_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.25	**0.25**	0.44	0.10	0.07	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	10 Nov 2022	0902_MW054_221110	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.41	**0.41**	0.67	0.10	0.09	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	09 May 2023	0902_MW054_230509	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	0.42	**0.42**	0.77	0.17	0.08	*<0.02*	*<0.02*	*<0.1*	0.03	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	04 Nov 2013	BH8-17	Normal	ACTNSW_Hist_202009-2		*<0.02*	*<0.02*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	03 Jul 2017	0902_MW56_030717	Normal	NSW_0902_PFAS		*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	03 Jul 2017	0902_QC201_030717	Interlab_D	NSW_0902_PFAS		*<0.01*	*<0.01*	0.03	-	-	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW056	14 Nov 2019	0902_MW056_191114	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.02	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	13 May 2020	0902_MW056_200513	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	13 May 2020	0902_QC102_200513	Field_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
MW056	13 Nov 2020	0902_MW056_201113	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	07 May 2021	0902_MW056_210507	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	24 Nov 2021	0902_MW056_211124	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	24 Nov 2021	0902_QC106_211124	Field_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	25 May 2022	0902_MW056_220525	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.01	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	07 Nov 2022	0902_MW056_221107	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.01	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	07 Nov 2022	0902_QC105_221107	Field_D	NSW_0902_PFASOMP		*<0.01*	*0.01*	*<0.01*	0.01	0.01	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	07 Nov 2022	0902_QC203_221107	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.01	0.03	0.03	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW056	09 May 2023	0902_MW056_230509	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	04 Nov 2013	BH8-18	Normal	ACTNSW_Hist_202009-2		*<0.02*	*<0.02*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	03 Jul 2017	0902_MW57_030717	Normal	NSW_0902_PFAS		*<0.05*	*0.13*	0.90	**1.03**	1.33	0.12	0.10	*<0.05*	*<0.05*	*<0.2*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW057	14 Nov 2019	0902_MW057_191114	Normal	NSW_0902_PFASOMP		0.03	*0.09*	0.70	**0.79**	1.15	0.11	0.09	*<0.02*	*<0.02*	*<0.1*	0.03	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	13 May 2020	0902_MW057_200513	Normal	NSW_0902_PFASOMP		0.06	*0.08*	0.81	**0.89**	1.37	0.13	0.08	*<0.02*	*<0.02*	*<0.1*	0.06	0.12	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	13 May 2020	0902_QC103_200513	Field_D	NSW_0902_PFASOMP		0.06	*0.08*	0.77	**0.85**	1.32	0.13	0.07	*<0.02*	*<0.02*	*<0.1*	0.06	0.12	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	11 Nov 2020	0902_MW057_201111	Normal	NSW_0902_PFASOMP		0.06	*0.09*	0.69	**0.78**	1.13	0.10	0.05	*<0.02*	*<0.02*	*<0.1*	0.05	0.07	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	04 May 2021	0902_MW057_210504	Normal	NSW_0902_PFASOMP		0.05	*0.12*	0.72	**0.84**	1.45	0.19	0.08	*<0.02*	*<0.02*	0.1	0.06	0.11	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	24 Nov 2021	0902_MW057_211124	Normal	NSW_0902_PFASOMP		0.06	*0.13*	0.73	**0.86**	1.37	0.12	0.06	*<0.02*	*<0.02*	*<0.1*	0.06	0.17	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	31 May 2022	0902_MW057_220531	Normal	NSW_0902_PFASOMP		0.07	*0.32*	0.66	**0.98**	1.57	0.10	0.08	0.02	*<0.02*	0.1	0.05	0.13	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	10 Nov 2022	0902_MW057_221110	Normal	NSW_0902_PFASOMP		0.08	*0.25*	1.08	**1.33**	2.15	0.12	0.12	0.03	*<0.02*	0.1	0.10	0.22	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	09 May 2023	0902_MW057_230509	Normal	NSW_0902_PFASOMP_23		0.06	*0.12*	0.63	**0.75**	1.45	0.13	0.07	0.02	*<0.02*	0.1	0.10	0.18	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW058	14 Nov 2009	0902_QC202_191114	Interlab_D	NSW_0902_PFASOMP		**0.80**	*<0.02*	9.9	-	-	2.5	2.0	*<0.01*	*<0.01*	0.56	0.79	3.6	0.74	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW058	04 Nov 2013	BH8-19	Normal	ACTNSW_Hist_202009-2		*<0.02*	*<0.02*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	30 Jun 2017	0902_MW58_300617	Normal	NSW_0902_PFAS		0.02	*<0.01*	1.86	**1.86**	6.34	1.66	0.92	*<0.02*	*<0.02*	*<0.1*	0.37	1.30	0.21	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW058	14 Nov 2019	0902_MW058_191114	Normal	NSW_0902_PFASOMP		0.06	*0.12*	3.81	**3.93**	14.0	2.78	2.31	*<0.02*	*<0.02*	0.4	0.61	3.52	0.31	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW058	13 May 2020	0902_MW058_200513	Normal	NSW_0902_PFASOMP		**0.90**	*<0.01*	9.34	**9.34**	21.2	2.67	2.29	0.06	*<0.02*	0.4	0.72	4.00	0.79	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW058	11 Nov 2020	0902_MW058_201111	Normal	NSW_0902_PFASOMP		0.42	*0.02*	6.03	**6.05**	12.1	1.60	1.17	0.02	*<0.02*	0.2	0.42	1.87	0.37	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW058	04 May 2021	0902_MW058_210504	Normal	NSW_0902_PFASOMP		0.39	*0.13*	2.85	**2.98**	9.12	1.34	1.23	0.06	*<0.02*	0.2	0.39	2.13	0.40	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW058	24 Nov 2021	0902_MW058_211124	Normal	NSW_0902_PFASOMP		**0.59**	*0.05*	5.63	**5.68**	13.7	1.94	1.23	0.05	*<0.02*	0.3	0.46	3.03	0.42	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW058	09 Aug 2022	0902_MW058_220809	Normal	NSW_0902_PFASMGMT		**0.65**	*0.05*	5.38	**5.43**	15.6	2.21	2.05	0.11	*<0.02*	0.4	0.69	3.51	0.59	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW058	10 Nov 2022	0902_MW058_221110	Normal	NSW_0902_PFASOMP		0.30	*0.26*	2.10	**2.36**	6.65	0.92	0.73	0.06	*<0.02*	0.2	0.32	1.50	0.26	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW058	09 May 2023	0902_MW058_230509	Normal	NSW_0902_PFASOMP_23		**0.61**	*0.02*	11.7	**11.7**	25.7	3.47	2.39	0.06	*<0.02*	0.5	1.11	4.82	1.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW059	05 Nov 2013	BH8-26	Normal	ACTNSW_Hist_202009-2		*<0.02*	*<0.02*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	03 Jul 2017	0902_MW59_030717	Normal	NSW_0902_PFAS		*<0.01*	*0.01*	1.96	**1.97**	6.98	2.20	1.21	*<0.02*	*<0.02*	*<0.1*	0.34	1.17	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW059	03 Jul 2017	0902_QC101_030717	Field_D	NSW_0902_PFAS		*<0.01*	*0.01*	1.96	**1.97**	6.99	2.22	1.20	*<0.02*	*<0.02*	*<0.1*	0.33	1.18	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW059	14 Nov 2019	0902_MW059_191114	Normal	NSW_0902_PFASOMP		0.06	*0.11*	3.91	**4.02**	14.0	2.72	2.40	*<0.02*	*<0.02*	0.3	0.63	3.54	0.32	0.03	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW059	14 Nov 2019	0902_QC105_191114	Field_D	NSW_0902_PFASOMP		0.07	*0.16*	5.04	**5.20**	17.8	3.68	2.89	*<0.02*	*<0.02*	0.2	0.75	4.54	0.40	0.03	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW059	15 May 2020	0902_MW059_200515	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.07	0.07	0.18	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW059	13 Nov 2020	0902_MW059_201113	Normal	NSW_0902_PFASOMP		0.02	*0.01*	3.34	**3.35**	11.6	2.09	2.02	*<0.02*	*<0.02*	0.3	0.50	2.98	0.32	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW059	07 May 2021	0902_MW059_210507	Normal	NSW_0902_PFASOMP		0.03	*0.07*	3.92	**3.99**	15.5	2.96	2.62	*<0.02*	*<0.02*	0.5	0.91	3.98	0.52	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW059	29 Nov 2021	0902_MW059_211129	Normal	NSW_0902_PFASOMP		0.02	*0.08*	2.68	**2.76**	12.2	3.07	1.77	*<0.02*	*<0.02*	0.4	0.61	3.28	0.29	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW059	31 May 2022	0902_MW059_220531	Normal	NSW_0902_PFASOMP		0.03	*0.04*	3.81	**3.85**	13.1	2.72	2.38	*<0.02*	*<0.02*	0.4	0.43	2.92	0.37	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW059	07 Nov 2022	0902_MW059_221107	Normal	NSW_0902_PFASOMP		0.03	*0.10*	5.01	**5.11**	17.6	3.52	2.90	*<0.02*	*<0.02*	0.6	0.80	4.22	0.47	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW059	07 Nov 2022	0902_QC205_221107	Interlab_D	NSW_0902_PFASOMP		0.02	*0.07*	4.3	**4.3**	15	3.0	2.8	*<0.01*	*<0.02*	0.53	0.66	2.9	0.40	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.01	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW059	09 May 2023	0902_MW059_230509	Normal	NSW_0902_PFASOMP_23		0.03	*0.06*	5.98	**6.04**	19.9	4.54	2.64	*<0.02*	*<0.02*	0.5	1.08	4.49	0.58	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW060	05 Jul 2017	0902_MW60_050717	Normal	NSW_0902_PFAS		0.10	*0.73*	2.98	**3.71**	4.81	0.24	0.36	0.09	*<0.02*	*<0.1*	*<0.02*	0.25	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW060	14 Nov 2019	0902_MW060_191114	Normal	NSW_0902_PFASOMP		0.09	*0.44*	1.94	**2.38**	3.35	0.17	0.23	0.07	*<0.02*	*<0.1*	0.06	0.31	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW060	12 May 2020	0902_MW060_200512	Normal	NSW_0902_PFASOMP		0.10	*0.52*	2.20	**2.72**	3.77	0.19	0.23	0.09	*<0.02*	*<0.1*	0.06	0.33	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW060	11 Nov 2020	0902_MW060_201111	Normal	NSW_0902_PFASOMP		0.07	*0.44*	1.65	**2.09**	2.95	0.14	0.23	0.07	*<0.02*	*<0.1*	0.05	0.26	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW060	04 Apr 2021	0902_QC201_210504	Interlab_D	NSW_0902_PFASOMP		0.075	*0.4*	1.9	-	-	0.18	0.21	0.045	*<0.01*	*<0.05*	0.059	0.27	0.039	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW060	04 May 2021	0902_MW060_210504	Normal	NSW_0902_PFASOMP		0.10	*0.54*	2.04	**2.58**	3.66	0.19	0.25	0.08	*<0.02*	*<0.1*	0.07	0.34	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW060	24 Nov 2021	0902_MW060_211124	Normal	NSW_0902_PFASOMP		0.05	*0.23*	0.45	**0.68**	0.95	0.05	0.04	0.02	*<0.02*	*<0.1*	*<0.02*	0.09	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW060	25 May 2022	0902_MW060_220525	Normal	NSW_0902_PFASOMP		0.08	*0.39*	1.58	**1.97**	2.79	0.16	0.20	0.06	*<0.02*	*<0.1*	0.04	0.24	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW060	07 Nov 2022	0902_MW060_221107	Normal	NSW_0902_PFASOMP		0.04	*0.23*	0.18	**0.41**	0.55	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.03	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW060	07 Nov 2022	0902_QC107_221107	Field_D	NSW_0902_PFASOMP		0.04	*0.14*	0.16	**0.30**	0.43	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.03	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW060	07 Nov 2022	0902_QC207_221107	Interlab_D	NSW_0902_PFASOMP		0.03	*0.14*	0.16	**0.31**	0.55	0.02	0.02	0.01	*<0.02*	0.06	0.03	0.05	0.02	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW060	09 May 2023	0902_MW060_230509	Normal	NSW_0902_PFASOMP_23		0.04	*0.21*	0.87	**1.08**	1.57	0.10	0.10	0.03	*<0.02*	*<0.1*	0.04	0.16	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW061	05 Jul 2017	0902_MW61_050717	Normal	NSW_0902_PFAS		0.10	*1.02*	1.43	**2.45**	3.05	0.12	0.12	0.04	*<0.02*	*<0.1*	*<0.02*	0.13	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW061	14 Nov 2019	0902_MW061_191114	Normal	NSW_0902_PFASOMP		0.15	*1.30*	2.31	**3.61**	4.93	0.24	0.26	0.11	*<0.02*	*<0.1*	0.10	0.40	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW061	12 May 2020	0902_MW061_200512	Normal	NSW_0902_PFASOMP		0.06	*0.61*	0.86	**1.47**	2.10	0.15	0.06	0.04	*<0.02*	*<0.1*	0.10	0.18	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW061	11 Nov 2020	0902_MW061_201111	Normal	NSW_0902_PFASOMP		0.03	*0.38*	0.32	**0.70**	0.94	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	0.04	0.07	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW061	04 May 2021	0902_MW061_210504	Normal	NSW_0902_PFASOMP		0.04	*0.71*	0.37	**1.08**	1.59	0.06	0.04	*<0.02*	*<0.02*	*<0.1*	0.23	0.10	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW061	24 Nov 2021	0902_MW061_211124	Normal	NSW_0902_PFASOMP		0.04	*0.27*	0.41	**0.68**	1.08	0.07	0.04	*<0.02*	*<0.02*	*<0.1*	0.08	0.14	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW061	25 May 2022	0902_MW061_220525	Normal	NSW_0902_PFASOMP		0.05	*0.34*	0.37	**0.71**	1.07	0.06	0.04	*<0.02*	*<0.02*	*<0.1*	0.06	0.11	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW061	07 Nov 2022	0902_MW061_221107	Normal	NSW_0902_PFASOMP		0.06	*0.40*	0.48	**0.88**	1.34	0.06	0.05	*<0.02*	*<0.02*	*<0.1*	0.08	0.16	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW061	09 May 2023	0902_MW061_230509	Normal	NSW_0902_PFASOMP_23		0.05	*0.21*	0.39	**0.60**	0.97	0.07	0.04	*<0.02*	*<0.02*	*<0.1*	0.08	0.10	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW062	05 Jul 2017	0902_MW62_050717	Normal	NSW_0902_PFAS		0.01	*0.51*	0.31	**0.82**	0.92	0.02	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW062	05 Jul 2017	0902_QC203_050717	Interlab_D	NSW_0902_PFAS		*<0.01*	*0.08*	0.14	-	-	0.03	0.05	*<0.01*	*<0.02*	*<0.02*	*<0.02*	0.03	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW062	14 Nov 2019	0902_MW062_191114	Normal	NSW_0902_PFASOMP		*<0.05*	*0.28*	0.20	**0.48**	0.48	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.2*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW062	12 May 2020	0902_MW062_200512	Normal	NSW_0902_PFASOMP		0.01	*0.64*	0.31	**0.95**	1.08	*<0.02*	0.02	0.02	*<0.02*	*<0.1*	0.03	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW062	11 Nov 2020	0902_MW062_201111	Normal	NSW_0902_PFASOMP		0.01	*0.43*	0.23	**0.66**	0.76	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.04	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW062	04 May 2021	0902_MW062_210504	Normal	NSW_0902_PFASOMP		*<0.01*	*0.30*	0.14	**0.44**	0.44	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW062	22 Nov 2021	0902_MW062_211122	Normal	NSW_0902_PFASOMP		*<0.01*	*0.28*	0.14	**0.42**	0.46	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW062	27 May 2022	0902_MW062_220527	Normal	NSW_0902_PFASOMP		*<0.01*	*0.33*	0.07	**0.40**	0.49	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.04	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW062	03 Nov 2022	0902_MW062_221103	Normal	NSW_0902_PFASOMP		*<0.01*	*0.57*	0.12	**0.69**	0.88	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.10	0.07	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW062	09 May 2023	0902_MW062_230509	Normal	NSW_0902_PFASOMP_23		0.01	*0.58*	0.23	**0.81**	1.22	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.19	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	05 Jul 2017	0902_MW63_050717	Normal	NSW_0902_PFAS		**1.08**	*1.47*	20.0	**21.5**	36.2	4.92	2.96	1.16	*<0.02*	*<0.1*	0.94	3.33	0.33	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	05 Jul 2017	0902_QC204_050717	Interlab_D	NSW_0902_PFAS		**0.65**	*1.6*	19	-	-	5.8	6.0	1.6	*<0.02*	*<0.2*	0.31	3.4	0.24	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.02	*<0.01*	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW063	14 Nov 2019	0902_MW063_191114	Normal	NSW_0902_PFASOMP		**0.58**	*1.51*	9.40	**10.9**	18.4	1.60	1.60	0.57	*<0.02*	0.2	0.42	2.26	0.26	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	12 May 2020	0902_MW063_200512	Normal	NSW_0902_PFASOMP		**0.63**	*1.37*	8.22	**9.59**	18.0	1.78	1.68	0.74	*<0.02*	0.3	0.48	2.49	0.33	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	11 Nov 2020	0902_MW063_201111	Normal	NSW_0902_PFASOMP		0.39	*1.68*	7.31	**8.99**	14.6	1.12	1.22	0.48	*<0.02*	0.2	0.32	1.63	0.21	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	04 May 2021	0902_MW063_210504	Normal	NSW_0902_PFASOMP		0.54	*2.76*	6.74	**9.50**	18.0	1.95	1.83	0.83	*<0.02*	0.3	0.46	2.33	0.29	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	22 Nov 2021	0902_MW063_211122	Normal	NSW_0902_PFASOMP		0.05	*0.22*	1.06	**1.28**	2.80	0.36	0.24	0.02	*<0.02*	*<0.1*	0.17	0.60	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	27 May 2022	0902_MW063_220527	Normal	NSW_0902_PFASOMP		0.46	*2.49*	7.26	**9.75**	16.8	1.43	1.54	0.41	*<0.02*	0.3	0.36	2.19	0.35	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	03 Nov 2022	0902_MW063_221103	Normal	NSW_0902_PFASOMP		0.55	*4.43*	11.2	**15.6**	25.5	1.66	2.28	0.65	*<0.02*	0.4	0.65	3.20	0.45	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	09 May 2023	0902_MW063_230509	Normal	NSW_0902_PFASOMP_23		0.56	*0.62*	8.74	**9.36**	17.6	1.69	1.13	0.21	*<0.02*	0.2	0.79	3.06	0.49	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	09 May 2023	0902_QC104_230509	Field_D	NSW_0902_PFASOMP_23		**0.95**	*1.28*	12.6	**13.9**	25.7	1.68	2.42	0.38	*<0.02*	0.4	0.91	4.19	0.70	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.21	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW063	09 May 2023	0902_QC204_230509	Interlab_D	NSW_0902_PFASOMP_23		**0.78**	*1.1*	12	**13**	23	1.7	2.0	0.37	*<0.02*	0.59	0.97	3.5	0.53	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.16	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW064	04 Jul 2017	0902_MW64_040717	Normal	NSW_0902_PFAS		*<0.01*	*0.22*	0.76	**0.98**	3.98	0.16	0.12	0.02	*<0.02*	2.7	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW064	13 Nov 2019	0902-MW064_191113	Normal	NSW_0902_PFASOMP		0.02	*0.27*	0.89	**1.16**	1.45	0.10	0.10	0.04	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW064	11 May 2020	0902_MW064_200511	Normal	NSW_0902_PFASOMP		0.02	*0.30*	0.84	**1.14**	1.43	0.09	0.12	0.03	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW064	10 Nov 2020	0902_MW064_201110	Normal	NSW_0902_PFASOMP		0.01	*0.24*	0.68	**0.92**	1.14	0.07	0.09	0.03	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW064	04 May 2021	0902_MW064_210504	Normal	NSW_0902_PFASOMP		0.02	*0.34*	0.94	**1.28**	1.66	0.15	0.13	0.04	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW064	22 Nov 2021	0902_MW064_211122	Normal	NSW_0902_PFASOMP		0.01	*0.14*	0.38	**0.52**	0.85	0.23	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW064	24 May 2022	0902_MW064_220524	Normal	NSW_0902_PFASOMP		0.02	*0.30*	0.71	**1.01**	1.27	0.08	0.10	0.04	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW064	24 May 2022	0902_QC200_220524	Interlab_D	NSW_0902_PFASOMP		0.02	*0.27*	0.59	**0.86**	1.1	0.08	0.09	0.03	*<0.02*	0.02	*<0.02*	0.02	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW064	02 Nov 2022	0902_MW064_221102	Normal	NSW_0902_PFASOMP		0.01	*0.17*	0.36	**0.53**	0.66	0.05	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW064	09 May 2023	0902_MW064_230509	Normal	NSW_0902_PFASOMP_23		0.01	*0.13*	0.43	**0.56**	0.74	0.09	0.06	0.02	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	04 Jul 2017	0902_MW65_040717	Normal	NSW_0902_PFAS		*<0.01*	*0.05*	0.42	**0.47**	0.59	0.06	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	13 Nov 2019	0902-MW065_191113	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.30	**0.33**	0.40	0.03	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	11 May 2020	0902_MW065_200511	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.24	**0.26**	0.33	0.03	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	11 May 2020	0902_QC200_200511	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*<0.02*	0.2	-	-	0.028	0.03	*<0.01*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW065	10 Nov 2020	0902_MW065_201110	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.18	**0.20**	0.27	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	04 May 2021	0902_MW065_210504	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.24	**0.26**	0.34	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	22 Nov 2021	0902_MW065_211122	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.18	**0.19**	0.26	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	22 Nov 2021	0902_QC101_211122	Field_D	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.25	**0.26**	0.35	0.05	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	24 May 2022	0902_MW065_220524	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.29	**0.30**	0.42	0.07	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
MW065	02 Nov 2022	0902_MW065_221102	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.39	**0.41**	0.54	0.06	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	09 May 2023	0902_MW065_230509	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	0.36	**0.36**	0.49	0.08	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	04 Jul 2017	0902_MW66_040717	Normal	NSW_0902_PFAS		*<0.01*	*0.18*	0.66	**0.84**	1.09	0.11	0.10	0.02	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	13 Nov 2019	0902-MW066_191113	Normal	NSW_0902_PFASOMP		0.02	*0.35*	0.78	**1.13**	1.42	0.08	0.09	0.04	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	11 May 2020	0902_MW066_200511	Normal	NSW_0902_PFASOMP		0.02	*0.31*	0.73	**1.04**	1.31	0.07	0.10	0.03	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	10 Nov 2020	0902_MW066_201110	Normal	NSW_0902_PFASOMP		0.02	*0.27*	0.65	**0.92**	1.16	0.07	0.08	0.03	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	04 May 2021	0902_MW066_210504	Normal	NSW_0902_PFASOMP		0.02	*0.37*	0.85	**1.22**	1.60	0.13	0.12	0.04	*<0.02*	*<0.1*	*<0.02*	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	22 Nov 2021	0902_MW066_211122	Normal	NSW_0902_PFASOMP		0.02	*0.25*	0.62	**0.87**	1.16	0.11	0.09	0.02	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	24 May 2022	0902_MW066_220524	Normal	NSW_0902_PFASOMP		0.02	*0.41*	0.74	**1.15**	1.45	0.09	0.11	0.04	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	24 May 2022	0902_QC102_220524	Field_D	NSW_0902_PFASOMP		0.02	*0.49*	0.97	**1.46**	1.80	0.10	0.13	0.04	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	02 Nov 2022	0902_MW066_221102	Normal	NSW_0902_PFASOMP		0.02	*0.52*	0.77	**1.29**	1.61	0.10	0.10	0.04	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	09 May 2023	0902_MW066_230509	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.02*	0.04	0.06	0.08	*<0.02*	*<0.02*	0.02	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	05 Jul 2017	0902_MW67_050717	Normal	NSW_0902_PFAS		*<0.01*	*0.01*	0.02	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	14 Nov 2019	0902_MW067_191114	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.03	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	15 May 2020	0902_MW067_200515	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.04	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	15 May 2020	0902_QC110_200515	Field_D	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.03	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	11 Nov 2020	0902_MW067_201111	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	05 May 2021	0902_MW067_210505	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.03	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	22 Nov 2021	0902_MW067_211122	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.03	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	26 May 2022	0902_MW067_220526	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.03	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	03 Nov 2022	0902_MW067_221103	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.04	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	09 May 2023	0902_MW067_230509	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	05 Jul 2017	0902_MW68_050717	Normal	NSW_0902_PFAS		0.06	*0.32*	2.00	**2.32**	2.93	0.12	0.22	0.05	*<0.02*	*<0.1*	*<0.02*	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	14 Nov 2019	0902_MW068_191114	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.24	**0.28**	0.33	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	12 May 2020	0902_MW068_200512	Normal	NSW_0902_PFASOMP		0.02	*0.08*	0.44	**0.52**	0.65	0.02	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	11 Nov 2020	0902_MW068_201111	Normal	NSW_0902_PFASOMP		0.02	*0.11*	0.63	**0.74**	0.97	0.04	0.07	0.02	*<0.02*	*<0.1*	*<0.02*	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	04 May 2021	0902_MW068_210504	Normal	NSW_0902_PFASOMP		0.07	*0.30*	1.85	**2.15**	2.97	0.19	0.19	0.07	*<0.02*	*<0.1*	0.05	0.23	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	23 Nov 2021	0902_MW068_211123	Normal	NSW_0902_PFASOMP		0.07	*0.33*	1.68	**2.01**	2.69	0.13	0.15	0.05	*<0.02*	*<0.1*	0.03	0.22	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	26 May 2022	0902_MW068_220526	Normal	NSW_0902_PFASOMP		0.21	*1.14*	3.87	**5.01**	6.73	0.29	0.45	0.15	*<0.02*	*<0.1*	0.07	0.48	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	26 May 2022	0902_QC206_220526	Interlab_D	NSW_0902_PFASOMP		0.20	*0.88*	3.6	**4.5**	6.4	0.34	0.42	0.15	*<0.02*	0.06	0.1	0.53	0.08	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW068	03 Nov 2022	0902_MW068_221103	Normal	NSW_0902_PFASOMP		0.25	*1.75*	6.64	**8.39**	10.9	0.41	0.66	0.23	*<0.02*	*<0.1*	0.14	0.71	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	09 May 2023	0902_MW068_230509	Normal	NSW_0902_PFASOMP_23		0.18	*0.90*	3.38	**4.28**	6.12	0.37	0.41	0.12	*<0.02*	*<0.1*	0.14	0.54	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	09 May 2023	0902_QC103_230509	Field_D	NSW_0902_PFASOMP_23		0.22	*1.35*	3.95	**5.30**	7.19	0.29	0.48	0.15	*<0.02*	*<0.1*	0.12	0.55	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	09 May 2023	0902_QC203_230509	Interlab_D	NSW_0902_PFASOMP_23		0.18	*1.1*	4.2	**5.3**	7.2	0.30	0.43	0.15	*<0.02*	0.07	0.1	0.54	0.07	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW069	05 Jul 2017	0902_MW69_050717	Normal	NSW_0902_PFAS		0.03	*0.65*	0.37	**1.02**	1.20	0.07	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	14 Nov 2019	0902_MW069_191114	Normal	NSW_0902_PFASOMP		0.03	*0.50*	0.32	**0.82**	1.01	0.05	0.04	*<0.02*	*<0.02*	*<0.1*	0.02	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	15 May 2020	0902_MW069_200515	Normal	NSW_0902_PFASOMP		0.05	*0.73*	0.42	**1.15**	1.43	0.08	0.05	0.02	*<0.02*	*<0.1*	0.02	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	15 May 2020	0902_QC210_200515	Interlab_D	NSW_0902_PFASOMP		0.024	*0.32*	0.24	-	-	0.041	0.026	*<0.01*	*<0.01*	*<0.05*	*<0.02*	0.035	0.012	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW069	11 Nov 2020	0902_MW069_201111	Normal	NSW_0902_PFASOMP		0.02	*0.40*	0.23	**0.63**	0.76	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	05 May 2021	0902_MW069_210505	Normal	NSW_0902_PFASOMP		0.01	*0.20*	0.15	**0.35**	0.42	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	23 Nov 2021	0902_MW069_211123	Normal	NSW_0902_PFASOMP		0.03	*0.36*	0.28	**0.64**	0.83	0.08	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	27 May 2022	0902_MW069_220527	Normal	NSW_0902_PFASOMP		0.03	*0.52*	0.29	**0.81**	1.00	0.07	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	27 May 2022	0902_QC107_220527	Field_D	NSW_0902_PFASOMP		0.03	*0.63*	0.45	**1.08**	1.36	0.09	0.05	0.02	*<0.02*	*<0.1*	0.03	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	03 Nov 2022	0902_MW069_221103	Normal	NSW_0902_PFASOMP		0.03	*0.60*	0.38	**0.98**	1.22	0.08	0.05	*<0.02*	*<0.02*	*<0.1*	0.02	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	11 May 2023	0902_MW069_230511	Normal	NSW_0902_PFASOMP_23		0.02	*0.36*	0.24	**0.60**	0.83	0.08	0.03	0.02	*<0.02*	*<0.1*	0.03	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	11 May 2023	0902_QC113_230511	Field_D	NSW_0902_PFASOMP_23		0.03	*0.46*	0.26	**0.72**	0.91	0.07	0.03	*<0.02*	*<0.02*	*<0.1*	0.02	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	11 May 2023	0902_QC213_230511	Interlab_D	NSW_0902_PFASOMP_23		0.03	*0.47*	0.36	**0.84**	1.1	0.08	0.04	0.01	*<0.02*	0.02	0.03	0.06	0.01	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW070	05 Jul 2017	0902_MW70_050717	Normal	NSW_0902_PFAS		0.17	*1.22*	2.08	**3.30**	4.80	0.54	0.20	0.07	*<0.02*	*<0.1*	0.18	0.28	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW070	15 May 2020	0902_MW070_200515	Normal	NSW_0902_PFASOMP		0.20	*1.23*	1.48	**2.71**	4.19	0.36	0.16	0.07	*<0.02*	0.1	0.17	0.32	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW070	13 Nov 2020	0902_MW070_201113	Normal	NSW_0902_PFASOMP		0.05	*0.43*	0.48	**0.91**	1.35	0.12	0.04	0.02	*<0.02*	*<0.1*	0.06	0.12	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW070	04 May 2021	0902_MW070_210504	Normal	NSW_0902_PFASOMP		0.10	*0.88*	0.87	**1.75**	3.30	0.64	0.13	0.04	*<0.02*	0.1	0.18	0.31	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW070	22 Nov 2021	0902_MW070_211122	Normal	NSW_0902_PFASOMP		0.16	*0.86*	1.68	**2.54**	4.49	0.64	0.21	0.05	*<0.02*	0.1	0.20	0.48	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW070	26 May 2022	0902_MW070_220526	Normal	NSW_0902_PFASOMP		0.05	*1.15*	0.30	**1.45**	1.87	0.15	0.03	0.02	*<0.02*	*<0.1*	0.04	0.10	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW070	03 Nov 2022	0902_MW070_221103	Normal	NSW_0902_PFASOMP		0.06	*1.24*	0.53	**1.77**	2.41	0.13	0.07	0.03	*<0.02*	*<0.1*	0.12	0.17	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW070	09 May 2023	0902_MW070_230509	Normal	NSW_0902_PFASOMP_23		0.07	*0.75*	0.47	**1.22**	1.83	0.15	0.05	0.03	*<0.02*	*<0.1*	0.12	0.13	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	04 Jul 2017	0902_MW71_040717	Normal	NSW_0902_PFAS		0.09	*1.72*	0.32	**2.04**	2.79	0.38	0.02	0.03	*<0.02*	*<0.1*	0.11	0.09	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	14 Nov 2019	0902_MW071_191114	Normal	NSW_0902_PFASOMP		0.08	*1.76*	0.59	**2.35**	3.22	0.16	0.07	0.04	*<0.02*	0.1	0.18	0.19	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	15 May 2020	0902_MW071_200515	Normal	NSW_0902_PFASOMP		0.10	*2.98*	0.65	**3.63**	5.00	0.36	0.09	0.06	*<0.02*	0.1	0.30	0.27	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	15 May 2020	0902_QC111_200515	Field_D	NSW_0902_PFASOMP		0.06	*1.93*	0.45	**2.38**	3.24	0.26	0.06	0.04	*<0.02*	*<0.1*	0.20	0.18	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	13 Nov 2020	0902_MW071_201113	Normal	NSW_0902_PFASOMP		0.05	*1.53*	0.36	**1.89**	2.45	0.13	0.04	0.03	*<0.02*	*<0.1*	0.13	0.14	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	04 May 2021	0902_MW071_210504	Normal	NSW_0902_PFASOMP		0.03	*1.00*	0.31	**1.31**	1.93	0.30	0.04	0.02	*<0.02*	*<0.1*	0.11	0.10	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	22 Nov 2021	0902_MW071_211122	Normal	NSW_0902_PFASOMP		0.05	*1.07*	0.34	**1.41**	1.91	0.15	0.03	0.03	*<0.02*	*<0.1*	0.09	0.11	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	26 May 2022	0902_MW071_220526	Normal	NSW_0902_PFASOMP		0.03	*0.75*	0.25	**1.00**	1.34	0.11	0.03	*<0.02*	*<0.02*	*<0.1*	0.05	0.09	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	03 Nov 2022	0902_MW071_221103	Normal	NSW_0902_PFASOMP		0.04	*1.08*	0.32	**1.40**	1.75	0.06	0.04	0.02	*<0.02*	*<0.1*	0.06	0.09	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	09 May 2023	0902_MW071_230509	Normal	NSW_0902_PFASOMP_23		0.04	*0.73*	0.30	**1.03**	1.45	0.10	0.03	0.03	*<0.02*	*<0.1*	0.10	0.09	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	04 Jul 2017	0902_MW72_040717	Normal	NSW_0902_PFAS		**3.94**	*14.6*	80.0	**94.6**	156	21.5	11.4	4.64	*<0.02*	1.3	3.67	14.5	0.77	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	13 Nov 2019	0902-MW072_191113	Normal	NSW_0902_PFASOMP		**4.20**	*13.9*	92.6	**106**	178	19.2	15.0	6.24	*<0.02*	2.4	3.36	19.4	1.77	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	11 May 2020	0902_MW072_200511	Normal	NSW_0902_PFASOMP		**3.76**	*14.0*	106	**120**	192	16.6	23.8	3.26	*<0.05*	2.2	3.26	17.6	1.85	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW072	11 Nov 2020	0902_MW072_201111	Normal	NSW_0902_PFASOMP		**2.80**	*14.2*	70.3	**84.5**	141	15.5	13.4	3.02	*<0.02*	2.2	2.72	15.4	1.57	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	05 May 2021	0902_MW072_210505	Normal	NSW_0902_PFASOMP		**1.90**	*12.8*	51.5	**64.3**	100	11.0	8.58	2.12	*<0.02*	0.5	1.74	8.85	1.00	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	24 Nov 2021	0902_MW072_211124	Normal	NSW_0902_PFASOMP		**4.16**	*25.6*	104	**130**	205	21.6	15.4	4.15	*<0.02*	2.6	3.80	21.4	2.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	24 May 2022	0902_MW072_220524	Normal	NSW_0902_PFASOMP		**2.14**	*32.1*	36.4	**68.5**	93.4	6.20	5.43	2.36	*<0.02*	0.9	0.84	6.22	0.83	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	10 Nov 2022	0902_MW072_221110	Normal	NSW_0902_PFASOMP		**5.04**	*110*	103	**213**	273	13.0	13.2	6.69	*<0.05*	2.3	2.86	15.6	1.74	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW072	15 May 2023	0902_MW072_230515	Normal	NSW_0902_PFASOMP_23		**3.64**	*48.3*	81.8	**130**	172	8.79	8.40	3.77	*<0.02*	1.6	2.90	11.7	1.35	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	04 Jul 2017	0902_MW73_040717	Normal	NSW_0902_PFAS		**1.39**	*3.70*	32.0	**35.7**	51.7	3.21	4.20	0.85	*<0.02*	*<0.1*	0.93	4.89	0.57	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	28 Nov 2019	0902_MW073_191128	Normal	NSW_0902_PFASOMP		**2.38**	*4.70*	40.4	**45.1**	80.2	5.38	9.52	1.93	*<0.02*	0.3	2.42	12.3	0.88	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	11 May 2020	0902_MW073_200512	Normal	NSW_0902_PFASOMP		**2.43**	*5.35*	38.3	**43.6**	75.3	4.83	5.82	2.34	*<0.02*	1.4	2.44	11.5	0.91	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	11 May 2020	0902_QC101_200512	Field_D	NSW_0902_PFASOMP		**2.48**	*5.66*	47.4	**53.1**	91.8	5.81	9.64	2.70	*<0.02*	1.4	2.54	13.2	0.94	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	11 Nov 2020	0902_MW073_201111	Normal	NSW_0902_PFASOMP		**1.16**	*6.38*	19.3	**25.7**	42.2	3.10	2.90	1.60	*<0.02*	1.4	1.00	4.72	0.64	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	05 May 2021	0902_MW073_210505	Normal	NSW_0902_PFASOMP		**0.82**	*3.86*	21.4	**25.3**	38.4	2.53	3.23	0.76	*<0.02*	0.4	0.73	4.18	0.47	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	24 Nov 2021	0902_MW073_211124	Normal	NSW_0902_PFASOMP		**1.72**	*4.32*	38.5	**42.8**	79.3	6.10	6.09	1.95	*<0.02*	1.3	2.70	15.7	0.95	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	24 May 2022	0902_MW073_220524	Normal	NSW_0902_PFASOMP		**1.90**	*1.53*	26.1	**27.6**	36.4	0.22	1.13	3.68	*<0.02*	0.2	0.12	1.25	0.26	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	10 Nov 2022	0902_MW073_221110	Normal	NSW_0902_PFASOMP		**1.81**	*1.61*	22.7	**24.3**	31.9	0.27	0.93	2.56	*<0.02*	0.3	0.22	1.33	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	15 May 2023	0902_MW073_230515	Normal	NSW_0902_PFASOMP_23		**2.42**	*5.37*	43.0	**48.4**	81.2	4.56	5.58	1.73	*<0.02*	5.3	2.00	10.2	1.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	04 Jul 2017	0902_MW74_040717	Normal	NSW_0902_PFAS		**0.95**	*11.6*	38.9	**50.5**	70.8	4.85	6.41	0.72	*<0.02*	*<0.1*	0.97	5.61	0.84	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	11 May 2020	0902_MW074_200512	Normal	NSW_0902_PFASOMP		**1.52**	*11.0*	26.6	**37.6**	58.7	3.71	3.90	2.30	*<0.02*	1.4	1.18	6.32	0.77	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	12 May 2020	0902_QC201_200512	Interlab_D	NSW_0902_PFASOMP		**0.97**	*6.3*	21	-	-	2.4	2.5	1.4	*<0.01*	1.4	0.92	4.3	0.53	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW074	11 Nov 2020	0902_MW074_201111	Normal	NSW_0902_PFASOMP		**1.13**	*3.48*	23.6	**27.1**	47.4	3.56	3.99	1.12	*<0.02*	1.0	1.47	7.49	0.53	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	05 May 2021	0902_MW074_210505	Normal	NSW_0902_PFASOMP		**0.96**	*1.04*	24.0	**25.0**	38.8	1.90	2.62	1.58	*<0.02*	0.1	0.83	5.34	0.41	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	24 Nov 2021	0902_MW074_211124	Normal	NSW_0902_PFASOMP		**1.28**	*5.59*	27.1	**32.7**	58.8	5.20	4.69	1.36	*<0.02*	2.5	1.43	8.87	0.82	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	24 May 2022	0902_MW074_220524	Normal	NSW_0902_PFASOMP		**1.27**	*6.34*	28.7	**35.0**	60.8	4.92	5.74	1.57	*<0.02*	3.0	0.94	7.51	0.85	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	10 Nov 2022	0902_MW074_221110	Normal	NSW_0902_PFASOMP		**1.44**	*6.32*	39.2	**45.5**	79.7	6.45	7.99	0.73	*<0.02*	4.5	1.89	10.2	1.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	10 Nov 2022	0902_QC111_221110	Field_D	NSW_0902_PFASOMP		**1.45**	*7.85*	34.8	**42.6**	75.4	6.09	6.66	1.06	*<0.02*	4.1	1.85	10.4	1.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	15 May 2023	0902_MW074_230515	Normal	NSW_0902_PFASOMP_23		**1.94**	*10.6*	54.6	**65.2**	110	8.61	9.90	1.33	*<0.02*	6.5	2.63	13.0	1.45	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	27 Nov 2017	0902_MW75_271117	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	15 Nov 2019	0902_MW075_191115	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	15 May 2020	0902_MW075_200515	Normal	NSW_0902_PFASOMP		0.04	*0.04*	4.26	**4.30**	18.8	4.16	3.37	*<0.02*	*<0.02*	0.4	0.99	5.00	0.54	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	10 Nov 2020	0902_MW075_201110	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	04 May 2021	0902_MW075_210504	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	25 Nov 2021	0902_MW075_211125	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	30 May 2022	0902_MW075_220530	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.01	0.01	0.01	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	08 Nov 2022	0902_MW075_221108	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.01	0.01	0.01	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	08 May 2023	0902_MW075_230508	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	08 May 2023	0902_QC100_230508	Field_D	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	08 May 2023	0902_QC200_230508	Interlab_D	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW076	27 Nov 2017	0902_MW76_271117	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
MW076	15 Nov 2019	0902_MW076_191115	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW076	15 May 2020	0902_MW076_200515	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW076	09 Nov 2020	0902_MW076_201109	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW076	03 May 2021	0902_MW076_210503	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW076	25 Nov 2021	0902_MW076_211125	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW076	31 May 2022	0902_MW076_220531	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.02	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW076	10 Nov 2022	0902_MW076_221110	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.04	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW076	10 May 2023	0902_MW076_230510	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW076	10 May 2023	0902_QC110_230510	Field_D	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW076	10 May 2023	0902_QC210_230510	Interlab_D	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	0.04	0.04	0.05	0.01	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW077	27 Nov 2017	0902_MW77_271117	Normal	NSW_0902_PFAS		*<0.01*	*0.04*	0.03	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	27 Nov 2017	0902_QC201_271117	Interlab_D	NSW_0902_PFAS		*<0.01*	*0.01*	0.02	-	-	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW077	15 Nov 2019	0902_MW077_191115	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.03	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	15 May 2020	0902_MW077_200515	Normal	NSW_0902_PFASOMP		*<0.01*	*0.08*	0.04	**0.12**	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	09 Nov 2020	0902_MW077_201109	Normal	NSW_0902_PFASOMP		*<0.01*	*0.07*	0.04	**0.11**	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	03 May 2021	0902_MW077_210503	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.03	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	25 Nov 2021	0902_MW077_211125	Normal	NSW_0902_PFASOMP		*<0.01*	*0.05*	0.04	**0.09**	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	31 May 2022	0902_MW077_220531	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.03	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	10 Nov 2022	0902_MW077_221110	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.03	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	10 May 2023	0902_MW077_230510	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.04*	0.02	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	27 Nov 2017	0902_MW78_271117	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	0.02	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	27 Nov 2017	0902_QC101_271117	Field_D	NSW_0902_PFAS		*<0.01*	*<0.01*	0.02	0.02	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.15	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	15 Nov 2019	0902_MW078_191115	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	13 May 2020	0902_MW078_200513	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	09 Nov 2020	0902_MW078_201109	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	03 May 2021	0902_MW078_210503	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	25 Nov 2021	0902_MW078_211125	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.18	**0.19**	0.34	0.06	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	31 May 2022	0902_MW078_220531	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	0.56	**0.57**	1.02	0.07	0.09	*<0.02*	*<0.02*	0.1	0.05	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	31 May 2022	0902_QC208_220531	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.41	**0.43**	0.82	0.06	0.06	*<0.01*	*<0.02*	0.09	0.04	0.13	0.01	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW078	08 Nov 2022	0902_MW078_221108	Normal	NSW_0902_PFASOMP		0.01	*0.03*	0.67	**0.70**	1.21	0.08	0.10	*<0.02*	*<0.02*	0.1	0.06	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	08 Nov 2022	0902_QC212_221108	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.58	**0.61**	1.1	0.08	0.1	*<0.01*	*<0.02*	0.1	0.05	0.12	0.01	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW078	11 May 2023	0902_MW078_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.03*	0.30	**0.33**	0.53	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	0.04	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	17 Nov 2017	0902_MW79_171117	Normal	NSW_0902_PFAS		0.04	*0.03*	0.55	**0.58**	0.96	0.07	0.12	0.03	*<0.02*	*<0.1*	*<0.02*	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	17 Nov 2017	0902_QC183_171117	Field_D	NSW_0902_PFAS		0.04	*0.04*	0.65	**0.69**	1.09	0.11	0.12	0.04	*<0.02*	*<0.1*	*<0.02*	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	15 Nov 2019	0902_MW079_191115	Normal	NSW_0902_PFASOMP		0.02	*0.01*	0.83	**0.84**	1.21	0.13	0.12	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	13 May 2020	0902_MW079_200513	Normal	NSW_0902_PFASOMP		0.02	*0.02*	1.07	**1.09**	1.68	0.24	0.14	0.03	*<0.02*	*<0.1*	0.03	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	09 Nov 2020	0902_MW079_201109	Normal	NSW_0902_PFASOMP		0.01	*<0.01*	0.72	**0.72**	1.07	0.12	0.12	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	03 May 2021	0902_MW079_210503	Normal	NSW_0902_PFASOMP		0.02	*<0.01*	1.13	**1.13**	1.67	0.16	0.16	0.03	*<0.02*	*<0.1*	0.03	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	24 Nov 2021	0902_MW079_211124	Normal	NSW_0902_PFASOMP		0.02	*0.08*	0.82	**0.90**	1.34	0.14	0.11	0.02	*<0.02*	*<0.1*	0.02	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	31 May 2022	0902_MW079_220531	Normal	NSW_0902_PFASOMP		0.02	*0.52*	1.25	**1.77**	2.36	0.16	0.18	0.03	*<0.02*	*<0.1*	0.04	0.14	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	08 Nov 2022	0902_MW079_221108	Normal	NSW_0902_PFASOMP		0.06	*1.44*	1.64	**3.08**	3.83	0.16	0.18	0.04	*<0.02*	*<0.1*	0.06	0.22	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	10 May 2023	0902_MW079_230510	Normal	NSW_0902_PFASOMP_23		0.05	*1.04*	1.39	**2.43**	3.06	0.14	0.15	0.04	*<0.02*	*<0.1*	0.04	0.19	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	10 May 2023	0902_QC111_230510	Field_D	NSW_0902_PFASOMP_23		0.06	*1.52*	1.62	**3.14**	3.93	0.18	0.19	0.05	*<0.02*	*<0.1*	0.06	0.22	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	10 May 2023	0902_QC211_230510	Interlab_D	NSW_0902_PFASOMP_23		0.05	*0.93*	1.7	**2.7**	3.4	0.16	0.18	0.04	*<0.02*	0.06	0.06	0.22	0.03	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW080	17 Nov 2017	0902_MW80_171117	Normal	NSW_0902_PFAS		0.25	*2.51*	3.80	**6.31**	9.61	0.72	0.70	0.36	*<0.02*	*<0.1*	0.19	0.97	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	15 Nov 2019	0902_MW080_191115	Normal	NSW_0902_PFASOMP		0.10	*1.17*	2.73	**3.90**	5.55	0.43	0.42	0.13	*<0.02*	*<0.1*	0.08	0.44	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	13 May 2020	0902_MW080_200513	Normal	NSW_0902_PFASOMP		0.18	*2.28*	4.32	**6.60**	9.39	0.66	0.63	0.29	*<0.02*	*<0.1*	0.16	0.78	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	09 Nov 2020	0902_MW080_201109	Normal	NSW_0902_PFASOMP		0.20	*3.38*	4.97	**8.35**	11.8	0.74	0.91	0.33	*<0.02*	0.1	0.17	0.89	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	03 May 2021	0902_MW080_210503	Normal	NSW_0902_PFASOMP		0.10	*0.88*	2.21	**3.09**	4.69	0.39	0.37	0.12	*<0.02*	*<0.1*	0.09	0.47	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	24 Nov 2021	0902_MW080_211124	Normal	NSW_0902_PFASOMP		0.18	*2.92*	4.38	**7.30**	10.5	0.86	0.62	0.28	*<0.02*	*<0.1*	0.16	1.01	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	24 Nov 2021	0902_QC207_211124	Interlab_D	NSW_0902_PFASOMP		0.17	*2.3*	4.2	**6.5**	9.4	0.64	0.65	0.27	*<0.02*	0.08	0.2	0.79	0.11	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.01	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW080	16 Jun 2022	0902_MW080_220616	Normal	NSW_0902_PFASOMP		*<0.01*	*0.06*	0.53	**0.59**	0.68	0.04	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	08 Nov 2022	0902_MW080_221108	Normal	NSW_0902_PFASOMP		0.06	*0.78*	2.07	**2.85**	3.99	0.30	0.33	0.09	*<0.02*	*<0.1*	0.06	0.26	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW080	07 Dec 2022	0902_MW080_221207	Normal	NSW_0902_PFASMGMT		0.17	*2.0*	3.5	**5.5**	7.8	0.49	0.54	0.20	*<0.02*	0.07	0.1	0.62	0.08	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.01	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW080	08 May 2023	0902_MW080_230508	Normal	NSW_0902_PFASOMP_23		0.17	*2.87*	3.62	**6.49**	8.94	0.53	0.64	0.27	*<0.02*	*<0.1*	0.17	0.59	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	09 Nov 2017	0902_MW81_091117	Normal	NSW_0902_PFAS		*<0.01*	*0.04*	0.03	0.07	0.09	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	15 Nov 2019	0902_MW081_191115	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	15 Nov 2019	0902_QC107_191115	Field_D	NSW_0902_PFASOMP		*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	15 May 2020	0902_MW081_200515	Normal	NSW_0902_PFASOMP		*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.2*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW081	13 Nov 2020	0902_MW081_201113	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	05 May 2021	0902_MW081_210505	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	29 Nov 2021	0902_MW081_211129	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.02	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	30 May 2022	0902_MW081_220530	Normal	NSW_0902_PFASOMP		*<0.01*	*0.07*	0.03	**0.10**	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	03 Nov 2022	0902_MW081_221103	Normal	NSW_0902_PFASOMP		*<0.01*	*0.07*	0.04	**0.11**	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	03 Nov 2022	0902_QC103_221103	Field_D	NSW_0902_PFASOMP		*<0.01*	*0.05*	0.03	**0.08**	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	09 May 2023	0902_MW081_230509	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.04*	0.02	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW082	09 Nov 2017	0902_MW82_091117	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW082	15 Nov 2019	0902_MW082_191115	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW082	15 May 2020	0902_MW082_200515	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW082	09 Nov 2020	0902_MW082_201109	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW082	04 May 2021	0902_MW082_210504	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW082	04 May 2021	0902_QC101_210504	Field_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW082	25 Nov 2021	0902_MW082_211125	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW082	30 May 2022	0902_MW082_220530	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW082	21 Nov 2022	0902_MW082_221121	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW082	09 May 2023	0902_MW082_230509	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW086	17 Nov 2017	0902_MW86_171117	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW086	15 Nov 2019	0902_MW086_191115	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW086	13 May 2020	0902_MW086_200513	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW086	09 Nov 2020	0902_MW086_201109	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW086	03 May 2021	0902_MW086_210503	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW086	22 Nov 2021	0902_MW086_211122	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	17 Nov 2017	0902_MW91_171117	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	13 May 2020	0902_MW091_200513	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.03	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	09 Nov 2020	0902_MW091_201109	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.02	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	03 May 2021	0902_MW091_210503	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.04	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	25 Nov 2021	0902_MW091_211125	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.02	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	30 May 2022	0902_MW091_220530	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.06	**0.09**	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	07 Nov 2022	0902_MW091_221107	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.05	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	10 May 2023	0902_MW091_230510	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.04*	0.03	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	17 Nov 2017	0902_MW92_171117	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	11 Nov 2019	0902_MW092_191111	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	13 May 2020	0902_MW092_200513	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	13 Nov 2020	0902_MW092_201113	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	06 May 2021	0902_MW092_210506	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	25 Nov 2021	0902_MW092_211125	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	31 May 2022	0902_MW092_220531	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	07 Nov 2022	0902_MW092_221107	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	10 May 2023	0902_MW092_230510	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	11 Jun 2020	0902_MW106_200611	Normal	NSW_0902_PFASMGMT		0.03	*0.16*	0.64	**0.80**	1.35	0.13	0.15	0.03	*<0.02*	*<0.1*	0.03	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	09 Nov 2020	0902_MW106_201109	Normal	NSW_0902_PFASMGMT		0.02	*0.09*	0.47	**0.56**	0.93	0.09	0.08	0.02	*<0.02*	*<0.1*	0.03	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	24 Nov 2021	0902_MW106_211124	Normal	NSW_0902_PFASOMP		0.08	*0.97*	1.89	**2.86**	4.14	0.34	0.20	0.11	*<0.02*	*<0.1*	0.07	0.44	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	24 Nov 2021	0902_QC107_211124	Field_D	NSW_0902_PFASOMP		0.05	*0.53*	1.29	**1.82**	2.75	0.23	0.18	0.06	*<0.02*	*<0.1*	0.06	0.32	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	31 May 2022	0902_MW106_220531	Normal	NSW_0902_PFASOMP		*<0.01*	*0.07*	0.50	**0.57**	0.66	0.04	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	08 Nov 2022	0902_MW106_221108	Normal	NSW_0902_PFASOMP		0.08	*1.64*	2.20	**3.84**	5.10	0.27	0.32	0.13	*<0.02*	*<0.1*	0.07	0.34	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	08 Nov 2022	0902_QC213_221108	Interlab_D	NSW_0902_PFASOMP		0.07	*1.1*	1.9	**3.0**	4.2	0.27	0.30	0.12	*<0.02*	0.04	0.06	0.27	0.04	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*

Table T8 - Historical Groundwater Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW106	07 Dec 2022	0902_MW106_221207	Normal	NSW_0902_PFASMGMT		0.09	*0.97*	1.8	**2.8**	3.9	0.24	0.26	0.11	*<0.02*	0.03	0.06	0.29	0.04	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW106	08 May 2023	0902_MW106_230508	Normal	NSW_0902_PFASOMP_23		0.05	*0.86*	1.28	**2.14**	2.92	0.18	0.22	0.09	*<0.02*	*<0.1*	0.05	0.17	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107D	11 Jun 2020	0902_MW107_D_200611	Normal	NSW_0902_PFASMGMT		0.07	*0.40*	1.71	**2.11**	3.15	0.19	0.25	0.07	*<0.02*	*<0.1*	0.05	0.37	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107D	10 Nov 2020	0902_MW107_D_201110	Normal	NSW_0902_PFASMGMT		0.06	*0.25*	1.16	**1.41**	2.20	0.13	0.14	0.04	*<0.02*	*<0.1*	0.06	0.32	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107D	23 Nov 2021	0902_MW107D_211123	Normal	NSW_0902_PFASOMP		**2.07**	*7.51*	14.2	**21.7**	42.7	3.29	2.79	0.97	*<0.02*	0.8	1.45	8.38	1.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107D	23 Nov 2021	0902_QC204_211123	Interlab_D	NSW_0902_PFASOMP		**1.9**	*7.6*	15	**23**	41	2.7	2.7	0.84	*<0.02*	0.97	1.4	7.0	1.1	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.1	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW107D	24 May 2022	0902_MW107D_220524	Normal	NSW_0902_PFASOMP		0.16	*1.69*	5.85	**7.54**	11.0	0.67	0.80	0.30	*<0.02*	0.1	0.20	1.03	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107D	10 Nov 2022	0902_MW107D_221110	Normal	NSW_0902_PFASOMP		0.18	*1.16*	3.43	**4.59**	6.61	0.35	0.42	0.10	*<0.02*	*<0.1*	0.14	0.73	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107D	08 May 2023	0902_MW107D_230508	Normal	NSW_0902_PFASOMP_23		**0.63**	*4.53*	5.20	**9.73**	15.2	0.86	0.95	0.42	*<0.02*	0.2	0.44	1.65	0.29	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107D	08 May 2023	0902_QC102_230508	Field_D	NSW_0902_PFASOMP_23		0.22	*1.88*	3.19	**5.07**	7.25	0.36	0.46	0.17	*<0.02*	*<0.1*	0.14	0.72	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107D	08 May 2023	0902_QC202_230508	Interlab_D	NSW_0902_PFASOMP_23		0.13	*0.89*	2.8	**3.7**	5.4	0.29	0.33	0.12	*<0.02*	0.06	0.1	0.55	0.07	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW107I	11 Jun 2020	0902_MW107_I_200611	Normal	NSW_0902_PFASMGMT		0.19	*1.16*	3.84	**5.00**	7.51	0.43	0.62	0.19	*<0.02*	*<0.1*	0.13	0.84	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107I	11 Jun 2020	0902_QC200_200611	Interlab_D	NSW_0902_PFASMGMT		0.22	*1.1*	3.4	**4.5**	7.0	0.43	0.44	0.18	*<0.02*	0.09	0.1	0.82	0.10	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW107I	10 Nov 2020	0902_MW107_I_201110	Normal	NSW_0902_PFASMGMT		**1.24**	*1.95*	9.56	**11.5**	23.1	1.77	2.16	0.53	*<0.02*	0.6	0.81	3.80	0.65	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107I	10 Nov 2020	0902_QC100_201110	Field_D	NSW_0902_PFASMGMT		**0.96**	*1.54*	7.47	**9.01**	17.9	1.35	1.69	0.41	*<0.02*	0.4	0.64	2.98	0.50	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107I	23 Nov 2021	0902_MW107I_211123	Normal	NSW_0902_PFASOMP		**0.77**	*2.67*	7.05	**9.72**	17.3	1.28	0.94	0.38	*<0.02*	0.2	0.48	3.08	0.41	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107I	23 Nov 2021	0902_QC104_211123	Field_D	NSW_0902_PFASOMP		**2.32**	*7.88*	18.8	**26.7**	49.7	3.48	3.40	1.15	*<0.02*	0.9	1.42	9.18	1.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107I	24 May 2022	0902_MW107I_220524	Normal	NSW_0902_PFASOMP		***32.4***	*156*	255	**411**	679	32.6	44.3	22.7	0.08	11.5	18.9	87.7	17.9	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107I	16 Jun 2022	0902_MW107I_220616	Normal	NSW_0902_PFASOMP		***75.6***	*266*	500	**766**	1,340	71.7	91.3	52.8	0.13	23.0	43.1	178	37.0	0.20	*<0.04*	*<0.04*	*<0.04*	*<0.04*	*<0.11*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.04*	*<0.11*	*<0.04*	*<0.11*	*<0.11*	*<0.04*	*<0.11*
MW107I	14 Jul 2022	0902_MW107I_220714	Normal	NSW_0902_PFASOMP		**10.6**	*62.7*	92.6	**155**	244	12.2	15.3	5.33	*<0.02*	4.0	6.14	29.7	5.18	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107I	14 Jul 2022	0902_QC101_220714	Field_D	NSW_0902_PFASOMP		**12.0**	*64.7*	96.7	**161**	258	13.9	15.0	6.08	*<0.02*	4.4	6.84	32.6	5.87	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW107I	10 Nov 2022	0902_MW107I_221110	Normal	NSW_0902_PFASOMP		***95.0***	*370*	728	**1,100**	1,780	91.4	120	37.4	0.14	26.6	41.2	227	40.4	0.24	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW107I	12 Jan 2023	0902_MW107I_230112	Normal	NSW_0902_PFASMGMT		**6.5**	*53*	64	**120**	180	11	11	4.2	*<0.02*	4.3	4.4	20	2.8	0.04	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.01	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW107I	09 May 2023	0902_MW107I_230509	Normal	NSW_0902_PFASOMP_23		**6.91**	*70.2*	61.8	**132**	197	10.8	11.7	3.23	*<0.02*	3.5	5.36	20.1	3.84	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW108	11 Jun 2020	0902_MW108_200611	Normal	NSW_0902_PFASMGMT		*<0.01*	*0.03*	0.34	**0.37**	0.73	0.11	0.12	*<0.02*	*<0.02*	*<0.1*	0.02	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW108	11 Nov 2020	0902_MW108_201111	Normal	NSW_0902_PFASMGMT		0.10	*0.38*	0.45	**0.83**	1.45	0.13	0.05	0.03	*<0.02*	*<0.1*	0.08	0.20	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW108	11 Nov 2020	0902_QC200_201111	Interlab_D	NSW_0902_PFASMGMT		0.11	*0.40*	0.49	**0.90**	1.7	0.14	0.09	0.03	*<0.02*	0.1	0.09	0.19	0.04	0.01	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW108	23 Nov 2021	0902_MW108_211123	Normal	NSW_0902_PFASOMP		0.13	*0.62*	0.88	**1.50**	2.67	0.30	0.12	0.05	*<0.02*	*<0.1*	0.12	0.34	0.08	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW108	23 Nov 2021	0902_QC105_211123	Field_D	NSW_0902_PFASOMP		0.16	*0.80*	0.95	**1.75**	3.20	0.33	0.13	0.05	*<0.02*	0.1	0.14	0.42	0.09	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW108	26 May 2022	0902_MW108_220526	Normal	NSW_0902_PFASOMP		0.02	*0.08*	0.97	**1.05**	1.82	0.25	0.24	*<0.02*	*<0.02*	*<0.1*	0.04	0.20	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW108	26 May 2022	0902_QC203_220526	Interlab_D	NSW_0902_PFASOMP		0.01	*0.05*	0.64	**0.70**	1.3	0.22	0.17	*<0.01*	*<0.02*	0.03	0.03	0.17	0.02	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW108	11 Nov 2022	0902_MW108_221111	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.45	**0.48**	0.80	0.11	0.11	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW108	07 Dec 2022	0902_MW108_221207	Normal	NSW_0902_PFASMGMT		0.02	*0.28*	0.47	**0.75**	1.2	0.12	0.1	0.01	*<0.02*	0.04	0.04	0.13	0.02	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW108	08 May 2023	0902_MW108_230508	Normal	NSW_0902_PFASOMP_23		0.01	*0.10*	0.50	**0.60**	1.02	0.14	0.12	*<0.02*	*<0.02*	*<0.1*	0.03	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW109	11 Jun 2020	0902_MW109_200611	Normal	NSW_0902_PFASMGMT		0.07	*1.36*	1.01	**2.37**	3.22	0.14	0.19	0.06	*<0.02*	*<0.1*	0.05	0.25	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.05	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW109	09 Nov 2020	0902_MW109_201109	Normal	NSW_0902_PFASMGMT		0.09	*1.74*	1.36	**3.10**	4.07	0.18	0.20	0.08	*<0.02*	*<0.1*	0.07	0.30	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW109	22 Nov 2021	0902_MW109_211122	Normal	NSW_0902_PFASOMP		0.20	*3.50*	2.87	**6.37**	8.59	0.50	0.41	0.19	*<0.02*	*<0.1*	0.12	0.69	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW109	22 Nov 2021	0902_QC100_211122	Field_D	NSW_0902_PFASOMP		0.19	*3.21*	2.76	**5.97**	8.12	0.49	0.39	0.18	*<0.02*	*<0.1*	0.12	0.68	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW109	27 May 2022	0902_MW109_220527	Normal	NSW_0902_PFASOMP		0.12	*3.14*	1.97	**5.11**	6.54	0.30	0.31	0.13	*<0.02*	*<0.1*	0.10	0.38	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW109	08 Nov 2022	0902_MW109_221108	Normal	NSW_0902_PFASOMP		0.18	*3.81*	2.60	**6.41**	8.15	0.32	0.36	0.14	*<0.02*	*<0.1*	0.12	0.52	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW109	08 May 2023	0902_MW109_230508	Normal	NSW_0902_PFASOMP_23		0.17	*3.62*	2.44	**6.06**	7.78	0.32	0.38	0.14	*<0.02*	*<0.1*	0.12	0.50	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW110	11 Jun 2020	0902_MW110_200611	Normal	NSW_0902_PFASMGMT		0.01	*0.03*	0.52	**0.55**	1.09	0.14	0.16	*<0.02*	*<0.02*	*<0.1*	0.04	0.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW110	09 Nov 2020	0902_MW110_201109	Normal	NSW_0902_PFASMGMT		*<0.01*	*0.01*	0.35	**0.36**	0.65	0.08	0.08	*<0.02*	*<0.02*	*<0.1*	0.02	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW110	22 Nov 2021	0902_MW110_211122	Normal	NSW_0902_PFASOMP		0.05	*0.10*	2.36	**2.46**	4.38	0.63	0.44	0.04	*<0.02*	*<0.1*	0.10	0.60	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW110	27 May 2022	0902_MW110_220527	Normal	NSW_0902_PFASOMP		0.05	*0.11*	2.26	**2.37**	3.98	0.43	0.46	0.04	*<0.02*	*<0.1*	0.11	0.45	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW110	08 Nov 2022	0902_MW110_221108	Normal	NSW_0902_PFASOMP		0.05	*0.12*	2.00	**2.12**	3.39	0.30	0.37	0.03	*<0.02*	*<0.1*	0.08	0.40	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW110	08 May 2023	0902_MW110_230508	Normal	NSW_0902_PFASOMP_23		0.06	*0.15*	1.96	**2.11**	3.49	0.33	0.39	0.04	*<0.02*	*<0.1*	0.09	0.42	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW111	11 Jun 2020	0902_MW111_200611	Normal	NSW_0902_PFASMGMT		0.02	*0.02*	0.62	**0.64**	1.56	0.22	0.19	*<0.02*	*<0.02*	*<0.1*	0.08	0.39	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW111	12 Nov 2020	0902_MW111_201112	Normal	NSW_0902_PFASMGMT		*<0.01*	*<0.01*	0.22	**0.22**	0.60	0.10	0.07	*<0.02*	*<0.02*	*<0.1*	0.04	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW111	25 Nov 2021	0902_MW111_211125	Normal	NSW_0902_PFASOMP		0.01	*0.05*	0.27	**0.32**	0.61	0.16	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW111	26 May 2022	0902_MW111_220526	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.69	**0.73**	2.46	0.98	0.52	*<0.02*	*<0.02*	*<0.1*	0.08	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW111	11 Nov 2022	0902_MW111_221111	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.09	**0.09**	0.22	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW111	11 May 2023	0902_MW111_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	0.11	**0.11**	0.39	0.09	0.05	*<0.02*	*<0.02*	*<0.1*	0.02	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T8 - Historical Groundwater Analytical Results

						PFAS					**PFAS - Perfluoroalkyl Sulfonic Acids**				**PFAS - Perfluoroalkyl Carboxylic Acids**										**PFAS - (n:2) Fluorotelomer Sulfonic Acids**				**PFAS - Perfluoroalkyl Sulfonamides**						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTriDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
MW112	11 Jun 2020	0902_MW112_200611	Normal	NSW_0902_PFASMGMT		*<0.01*	*0.03*	*<0.02*	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW112	12 Nov 2020	0902_MW112_201112	Normal	NSW_0902_PFASMGMT		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW112	25 Nov 2021	0902_MW112_211125	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW112	26 May 2022	0902_MW112_220526	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW112	11 Nov 2022	0902_MW112_221111	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW112	11 May 2023	0902_MW112_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW113	11 Jun 2020	0902_MW113_200611	Normal	NSW_0902_PFASMGMT		*<0.01*	*0.05*	*<0.02*	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW113	12 Nov 2020	0902_MW113_201112	Normal	NSW_0902_PFASMGMT		*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW113	29 Nov 2021	0902_MW113_211129	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW113	26 May 2022	0902_MW113_220526	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW113	11 Nov 2022	0902_MW113_221111	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW113	11 May 2023	0902_MW113_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW114	11 Jun 2020	0902_MW114_200611	Normal	NSW_0902_PFASMGMT		*<0.01*	*<0.01*	0.06	0.06	0.08	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW114	11 Jun 2020	0902_QC100_200611	Field_D	NSW_0902_PFASMGMT		*<0.01*	*<0.01*	0.06	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW114	12 Nov 2020	0902_MW114_201112	Normal	NSW_0902_PFASMGMT		*<0.01*	*<0.01*	0.15	**0.15**	0.22	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW114	29 Nov 2021	0902_MW114_211129	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.14	**0.14**	0.19	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW114	29 Nov 2021	0902_QC213_211129	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.14	**0.14**	0.20	0.03	0.02	*<0.01*	*<0.02*	*<0.02*	*<0.02*	0.01	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW114	26 May 2022	0902_MW114_220526	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.15	**0.15**	0.19	0.02	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW114	26 May 2022	0902_QC106_220526	Field_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.13	**0.13**	0.17	0.02	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW114	11 Nov 2022	0902_MW114_221111	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	0.10	**0.10**	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW114	11 May 2023	0902_MW114_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	0.17	**0.17**	0.25	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW143	10 May 2023	0902_MW143_230510	Normal	NSW_0902_PFASOMP_23		0.01	*0.58*	0.11	**0.69**	0.73	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW143	10 May 2023	0902_QC112_230510	Field_D	NSW_0902_PFASOMP_23		0.01	*0.76*	0.14	**0.90**	1.01	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW143	10 May 2023	0902_QC212_230510	Interlab_D	NSW_0902_PFASOMP_23		0.01	*0.65*	0.17	**0.81**	0.93	0.03	0.02	0.01	*<0.02*	*<0.02*	*<0.02*	0.04	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW143	09 Jun 2023	0902_MW143_230609	Normal	NSW_0902_PFASOMP_23		0.01	*0.70*	0.13	**0.83**	0.89	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW144	10 May 2023	0902_MW144_230510	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.01*	0.05	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW144	09 Jun 2023	0902_MW144_230609	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.02*	0.07	**0.09**	0.12	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Table T9 - Historical Surface Water Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water							**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
SW001	03 Jul 2017	0902_SW001_030717	Normal	NSW_0902_PFAS			9.02	*10.3*	0.78	**11.1**	847	0.52	0.43	0.18	*<0.02*	4.8	7.62	50.6	3.93	9.00	9.37	1.19	1.22	*<0.02*	*<0.05*	0.13	712	25.6	0.20	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	03 Jul 2017	0902_QC107_030717	Field_D	NSW_0902_PFAS			**10.1**	*10.6*	1.17	**11.8**	604	0.87	0.71	0.21	0.23	3.2	8.90	53.5	2.31	7.49	7.79	1.14	1.50	0.02	*<0.05*	0.61	477	16.4	0.14	0.53	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	27 Feb 2018	0902_SW001_270218	Normal	NSW_0902_PFAS			6.28	*11.4*	2.44	**13.8**	56.7	0.30	0.28	0.27	*<0.02*	0.9	2.07	2.51	3.10	7.01	5.58	0.39	0.13	0.03	*<0.05*	*<0.05*	8.06	5.97	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	04 Nov 2019	0902_SW001_191104	Normal	NSW_0902_PFASOMP			8.32	*62.8*	3.99	**66.8**	230	0.71	0.51	0.48	1.23	1.9	3.08	3.81	3.34	15.1	47.0	14.1	4.05	0.23	0.10	*<0.05*	8.72	49.2	0.46	0.42	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	04 Nov 2019	0902_QC100_191104	Field_D	NSW_0902_PFASOMP			8.80	*77.9*	4.08	**82.0**	279	0.70	0.52	0.43	2.01	2.0	3.08	4.01	3.42	13.6	49.6	36.2	11.3	0.75	0.21	*<0.05*	8.88	49.5	1.56	0.92	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	13 Nov 2020	0902_SW001_201113	Normal	NSW_0902_PFASOMP			4.98	*14.6*	3.49	**18.1**	71.0	0.67	0.42	0.24	0.10	2.2	4.08	5.54	3.16	9.32	5.78	0.59	0.20	0.05	0.05	*<0.05*	7.36	8.20	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	13 Nov 2020	0902_QC108_201113	Field_D	NSW_0902_PFASOMP			5.08	*41.2*	3.48	**44.7**	135	0.68	0.46	0.31	0.49	2.3	3.78	5.00	3.17	9.36	13.4	6.65	4.85	1.22	0.82	*<0.05*	7.36	24.2	0.59	0.24	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	07 May 2021	0902_SW001_210507	Normal	NSW_0902_PFASOMP			0.85	*7.54*	2.73	**10.3**	17.8	0.40	0.34	0.18	0.14	0.5	1.16	1.53	0.54	0.45	0.46	0.19	0.08	*<0.02*	*<0.05*	*<0.05*	0.27	0.42	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	26 Nov 2021	0902_SW001_211126	Normal	NSW_0902_PFASOMP			0.23	*4.10*	0.90	**5.00**	7.54	0.27	0.12	0.05	0.04	0.3	0.43	0.62	0.13	0.10	0.09	0.04	0.02	*<0.02*	*<0.05*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	26 Nov 2021	0902_QC208_211126	Interlab_D	NSW_0902_PFASOMP			0.23	*4.1*	0.88	**5.0**	7.5	0.21	0.12	0.06	*<0.02*	0.46	0.42	0.48	0.14	0.11	0.09	0.03	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.04	0.1	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW001	24 May 2022	0902_SW001_220524	Normal	NSW_0902_PFASOMP			1.57	*23.0*	9.28	**32.3**	49.2	1.67	1.65	0.48	0.13	1.0	1.96	3.78	1.67	0.68	0.70	0.28	0.06	*<0.02*	*<0.05*	*<0.05*	0.33	0.89	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	08 May 2023	0902_SW001_230508	Normal	NSW_0902_PFASOMP_23			3.69	*17.0*	3.12	**20.1**	54.6	0.56	0.50	0.43	0.17	1.3	2.68	4.14	2.89	3.60	3.28	1.63	1.06	0.19	0.15	*<0.05*	0.96	7.09	0.12	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	04 Jul 2017	0902_SW002_040717	Normal	NSW_0902_PFAS			5.28	*53.5*	30.4	**83.9**	267	4.08	3.62	2.55	*<0.02*	3.0	3.70	24.7	2.54	3.56	1.84	0.16	0.09	*<0.02*	*<0.05*	0.06	123	4.85	*<0.05*	0.05	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	15 Jan 2018	0902_SW002_180115	Normal	NSW_0902_PFAS			2.59	*24.4*	6.18	**30.6**	50.0	1.28	0.81	0.48	0.03	0.6	1.20	3.13	1.39	1.70	0.77	0.07	*<0.02*	*<0.02*	*<0.05*	*<0.05*	4.22	1.12	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	04 Nov 2019	0902_SW002_191104	Normal	NSW_0902_PFASOMP			0.74	*10.9*	2.55	**13.4**	22.3	0.45	0.42	0.23	0.02	0.4	0.66	1.12	0.42	0.93	0.98	0.19	0.02	*<0.02*	*<0.05*	*<0.05*	0.72	1.51	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 May 2020	0902_SW002_200514	Normal	NSW_0902_PFASOMP			0.30	*13.7*	2.94	**16.6**	19.8	0.36	0.34	0.36	0.02	0.1	0.25	0.72	0.13	0.08	0.17	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	0.19	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140704	Normal	NSW_0902_PFASMGMT			0.02	*0.47*	0.17	0.64	0.98	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	0.03	0.10	0.02	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140719	Normal	NSW_0902_PFASMGMT			0.04	*0.93*	0.38	1.31	1.88	0.08	0.07	0.03	*<0.02*	*<0.1*	0.06	0.17	0.03	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140734	Normal	NSW_0902_PFASMGMT			0.27	*4.60*	1.23	**5.83**	10.5	0.26	0.23	0.10	*<0.02*	0.1	0.28	0.63	0.18	0.38	0.70	0.19	0.05	*<0.02*	*<0.05*	*<0.05*	0.26	1.01	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140749	Normal	NSW_0902_PFASMGMT			0.59	*5.19*	1.29	**6.48**	14.5	0.29	0.22	0.13	*<0.02*	0.1	0.46	0.88	0.42	0.80	1.16	0.29	0.08	*<0.02*	*<0.05*	*<0.05*	0.54	2.05	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140804	Normal	NSW_0902_PFASMGMT			0.64	*4.66*	1.19	**5.85**	13.6	0.23	0.22	0.10	*<0.02*	0.2	0.52	0.96	0.48	0.69	1.07	0.20	0.07	*<0.02*	*<0.05*	*<0.05*	0.48	1.88	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140834	Normal	NSW_0902_PFASMGMT			0.55	*3.93*	0.94	**4.87**	10.7	0.19	0.16	0.08	*<0.02*	0.2	0.41	0.77	0.39	0.52	0.77	0.19	0.08	*<0.02*	*<0.05*	*<0.05*	0.43	1.12	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140904	Normal	NSW_0902_PFASMGMT			0.62	*4.58*	1.58	**6.16**	12.4	0.30	0.26	0.13	*<0.02*	0.2	0.48	0.96	0.45	0.54	0.71	0.12	0.04	*<0.02*	*<0.05*	*<0.05*	0.43	1.02	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140934	Normal	NSW_0902_PFASMGMT			0.80	*13.0*	2.62	**15.6**	24.1	0.45	0.42	0.23	0.04	0.3	0.64	1.32	0.49	0.65	0.92	0.19	0.07	*<0.02*	*<0.05*	*<0.05*	0.48	1.43	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007141034	Normal	NSW_0902_PFASMGMT			0.82	*20.8*	3.65	**24.4**	34.2	0.66	0.62	0.30	0.04	0.4	0.74	1.62	0.50	0.62	1.01	0.21	0.07	*<0.02*	*<0.05*	*<0.05*	0.51	1.65	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007141134	Normal	NSW_0902_PFASMGMT			0.74	*16.8*	3.67	**20.5**	29.7	0.68	0.65	0.33	0.06	0.3	0.70	1.54	0.45	0.62	0.85	0.23	0.09	*<0.02*	*<0.05*	*<0.05*	0.42	1.52	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_QC105_200714	Field_D	NSW_0902_PFASMGMT			0.04	*0.89*	0.36	1.25	1.80	0.08	0.07	0.02	*<0.02*	*<0.1*	0.06	0.16	0.03	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_QC106_200714	Field_D	NSW_0902_PFASMGMT			0.60	*3.98*	1.10	**5.08**	11.7	0.20	0.19	0.08	*<0.02*	0.2	0.45	0.80	0.41	0.52	0.84	0.19	0.08	*<0.02*	*<0.05*	*<0.05*	0.48	1.55	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071145	Normal	NSW_0902_PFASMGMT			0.52	*10.0*	5.04	**15.0**	19.7	0.66	0.70	0.36	*<0.02*	0.2	0.40	1.32	0.29	0.05	0.04	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	0.05	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071200	Normal	NSW_0902_PFASMGMT			0.53	*10.6*	4.72	**15.3**	19.8	0.63	0.71	0.35	*<0.02*	0.2	0.39	1.29	0.28	0.04	0.04	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071215	Normal	NSW_0902_PFASMGMT			0.54	*10.4*	4.81	**15.2**	19.7	0.64	0.70	0.37	*<0.02*	0.2	0.40	1.28	0.27	0.05	0.04	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071230	Normal	NSW_0902_PFASMGMT			0.46	*8.40*	4.02	**12.4**	16.2	0.52	0.56	0.29	*<0.02*	0.2	0.34	1.06	0.23	0.04	0.03	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071300	Normal	NSW_0902_PFASMGMT			0.13	*3.23*	1.02	**4.25**	5.28	0.14	0.13	0.07	*<0.02*	*<0.1*	0.10	0.31	0.07	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071330	Normal	NSW_0902_PFASMGMT			0.13	*2.60*	0.86	**3.46**	4.44	0.13	0.12	0.06	*<0.02*	*<0.1*	0.10	0.27	0.07	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071345	Normal	NSW_0902_PFASMGMT			0.08	*2.01*	0.64	**2.65**	3.32	0.10	0.08	0.04	*<0.02*	*<0.1*	0.06	0.20	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071400	Normal	NSW_0902_PFASMGMT			0.06	*1.74*	0.50	**2.24**	2.80	0.08	0.07	0.04	*<0.02*	*<0.1*	0.04	0.17	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071500	Normal	NSW_0902_PFASMGMT			0.44	*2.94*	0.85	**3.79**	7.81	0.16	0.14	0.06	*<0.02*	0.1	0.29	0.61	0.32	0.35	0.44	0.14	0.08	*<0.02*	*<0.05*	*<0.05*	0.32	0.57	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071600	Normal	NSW_0902_PFASMGMT			0.43	*9.06*	2.03	**11.1**	15.9	0.35	0.35	0.16	0.02	0.2	0.34	0.90	0.28	0.28	0.40	0.12	0.05	*<0.02*	*<0.05*	*<0.05*	0.26	0.64	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	08 Sep 2020	0902_SW002_200908	Normal	NSW_0902_PFASMGMT			1.17	*44.4*	9.40	**53.8**	65.4	1.35	1.55	1.40	0.35	0.4	0.85	2.67	0.56	0.11	0.18	0.36	0.12	*<0.02*	*<0.05*	*<0.05*	0.23	0.23	*<0.05*	0.10	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	08 Sep 2020	0902_QC107_200908	Field_D	NSW_0902_PFASMGMT			1.14	*46.7*	10.8	**57.5**	70.2	1.46	1.76	1.86	0.41	0.4	0.90	2.83	0.60	0.12	0.16	0.30	0.11	*<0.02*	*<0.05*	*<0.05*	0.33	0.22	*<0.05*	0.09	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	28 Oct 2020	0902_SW002_2010281630	Normal	NSW_0902_PFASMGMT			0.99	*27.7*	15.4	**43.1**	58.5	2.67	2.86	1.24	0.02	0.7	1.16	4.78	0.38	0.10	0.09	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.19	0.14	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	13 Nov 2020	0902_SW002_201113	Normal	NSW_0902_PFASOMP			0.36	*16.5*	5.92	**22.4**	27.1	0.66	0.69	0.40	*<0.02*	0.2	0.36	1.63	0.20	0.04	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	0.06	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	13 Nov 2020	0902_QC208_201113	Interlab_D	NSW_0902_PFASOMP			0.37	*11*	4.9	-	-	0.69	0.6	0.3	*<0.01*	0.24	0.36	1.4	0.19	0.034	0.033	0.016	*<0.01*	*<0.02*	*<0.02*	*<0.01*	0.051	0.048	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101290800	Normal	NSW_0902_PFASMGMT			0.11	*3.33*	1.12	**4.45**	5.65	0.18	0.15	0.08	*<0.02*	*<0.1*	0.10	0.39	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101290845	Normal	NSW_0902_PFASMGMT			0.12	*3.42*	1.14	**4.56**	5.78	0.18	0.14	0.09	*<0.02*	*<0.1*	0.10	0.41	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101290930	Normal	NSW_0902_PFASMGMT			0.12	*3.84*	1.25	**5.09**	6.41	0.19	0.15	0.10	*<0.02*	*<0.1*	0.11	0.44	0.08	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291015	Normal	NSW_0902_PFASMGMT			0.10	*3.70*	1.27	**4.97**	6.28	0.20	0.16	0.10	*<0.02*	*<0.1*	0.10	0.43	0.08	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291100	Normal	NSW_0902_PFASMGMT			0.13	*4.68*	1.43	**6.11**	7.55	0.22	0.17	0.10	*<0.02*	*<0.1*	0.12	0.47	0.08	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.13	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291145	Normal	NSW_0902_PFASMGMT			0.23	*3.83*	1.22	**5.05**	7.15	0.18	0.14	0.09	*<0.02*	*<0.1*	0.18	0.59	0.16	0.10	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.30	0.08	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291230	Normal	NSW_0902_PFASMGMT			0.12	*2.38*	0.75	**3.13**	4.39	0.12	0.09	0.05	*<0.02*	*<0.1*	0.11	0.34	0.09	0.05	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.20	0.06	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291315	Normal	NSW_0902_PFASMGMT			0.14	*2.52*	0.89	**3.41**	4.78	0.13	0.12	0.06	*<0.02*	*<0.1*	0.12	0.34	0.06	0.06	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.25	0.06	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291400	Normal	NSW_0902_PFASMGMT			0.18	*3.39*	0.93	**4.32**	6.10	0.14	0.12	0.08	*<0.02*	*<0.1*	0.16	0.40	0.09	0.11	0.06	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.31	0.11	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291445	Normal	NSW_0902_PFASMGMT			1.05	*8.04*	1.93	**9.97**	21.0	0.26	0.23	0.20	0.04	0.2	0.52	1.13	0.39	1.61	1.42	0.27	0.05	*<0.02*	*<0.05*	*<0.05*	1.09	2.58	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T9 - Historical Surface Water Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
SW002	29 Jan 2021	0902_SW002_2101291530	Normal	NSW_0902_PFASMGMT		0.44	*4.04*	0.94	**4.98**	10.5	0.13	0.12	0.10	0.02	*<0.1*	0.22	0.49	0.18	0.75	0.82	0.20	0.04	*<0.02*	*<0.05*	*<0.05*	0.49	1.56	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_QC109_210129	Field_D	NSW_0902_PFASMGMT		0.11	*3.29*	1.11	**4.40**	5.57	0.17	0.14	0.09	*<0.02*	*<0.1*	0.10	0.39	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_QC110_210129	Field_D	NSW_0902_PFASMGMT		0.10	*3.69*	1.27	**4.96**	6.25	0.19	0.16	0.10	*<0.02*	*<0.1*	0.10	0.44	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_QC208_210129	Interlab_D	NSW_0902_PFASMGMT		0.10	*3.5*	1.2	**4.7**	6.1	0.21	0.19	0.11	*<0.02*	0.09	0.1	0.38	0.08	0.01	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.13	0.03	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW002	29 Jan 2021	0902_QC209_210129	Interlab_D	NSW_0902_PFASMGMT		0.11	*4.0*	1.3	**5.2**	6.8	0.21	0.20	0.11	*<0.02*	0.1	0.1	0.39	0.09	*<0.01*	0.02	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.13	0.03	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW002	05 May 2021	0902_SW002_210505	Normal	NSW_0902_PFASOMP		0.67	*6.88*	3.16	**10.0**	18.1	1.22	1.10	0.51	*<0.02*	0.4	0.74	2.17	0.47	0.20	0.11	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.26	0.17	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	09 Nov 2021	0902_SW002_211109	Normal	NSW_0902_PFASMGMT		0.60	*16.4*	7.25	**23.6**	31.5	1.46	1.17	0.53	0.03	0.4	0.65	2.39	0.34	0.11	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111260820	Normal	NSW_0902_PFASMGMT		0.13	*6.06*	1.23	**7.29**	9.06	0.27	0.16	0.09	0.02	0.2	0.21	0.53	0.07	0.05	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111260835	Normal	NSW_0902_PFASMGMT		0.11	*4.34*	0.91	**5.25**	6.75	0.25	0.15	0.07	*<0.02*	0.2	0.19	0.40	0.06	0.04	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111260850	Normal	NSW_0902_PFASMGMT		0.10	*4.40*	0.89	**5.29**	6.66	0.25	0.14	0.07	*<0.02*	0.1	0.19	0.39	0.06	0.04	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111260920	Normal	NSW_0902_PFASMGMT		0.13	*5.06*	1.15	**6.21**	8.01	0.29	0.19	0.08	0.02	0.2	0.24	0.50	0.07	0.05	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111260950	Normal	NSW_0902_PFASMGMT		0.10	*4.18*	0.82	**5.00**	6.30	0.23	0.13	0.07	*<0.02*	0.1	0.18	0.37	0.06	0.04	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111261020	Normal	NSW_0902_PFASMGMT		0.13	*5.54*	1.16	**6.70**	8.49	0.30	0.19	0.10	0.02	0.2	0.21	0.50	0.07	0.04	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111261050	Normal	NSW_0902_PFASMGMT		0.12	*4.39*	1.01	**5.40**	6.87	0.26	0.16	0.08	*<0.02*	0.1	0.18	0.43	0.06	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111261120	Normal	NSW_0902_PFASMGMT		0.13	*5.78*	1.17	**6.95**	8.69	0.29	0.18	0.10	0.02	0.2	0.19	0.48	0.07	0.05	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111261220	Normal	NSW_0902_PFASMGMT		0.14	*6.00*	1.28	**7.28**	9.09	0.32	0.19	0.11	0.02	0.1	0.20	0.57	0.07	0.05	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111261320	Normal	NSW_0902_PFASMGMT		0.15	*5.94*	1.45	**7.39**	9.39	0.35	0.21	0.11	0.02	0.2	0.22	0.58	0.08	0.05	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_QC100_211126	Field_D	NSW_0902_PFASMGMT		0.11	*4.87*	0.89	**5.76**	7.15	0.24	0.14	0.08	0.02	0.1	0.18	0.40	0.05	0.04	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_QC200_211126	Interlab_D	NSW_0902_PFASMGMT		0.11	*4.3*	1.2	**5.5**	6.8	0.18	0.15	0.08	*<0.02*	0.2	0.2	0.34	0.07	0.05	0.03	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.01	0.02	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW002	29 Nov 2021	0902_SW002_211129	Normal	NSW_0902_PFASOMP		0.95	*41.6*	15.0	**56.6**	67.8	1.86	1.89	1.00	0.02	0.4	0.86	3.58	0.49	0.10	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	18 Jan 2022	0902_SW002_220118	Normal	NSW_0902_PFASMGMT		1.37	*46.6*	17.4	**64.0**	81.0	2.52	3.11	1.73	0.02	0.6	1.04	5.55	0.70	0.09	0.04	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	0.08	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	21 Feb 2022	0902_SW002_220221	Normal	NSW_0902_PFASMGMT		1.25	*21.2*	8.20	**29.4**	44.0	1.44	1.50	0.83	0.03	0.5	1.18	3.40	1.12	0.61	0.42	0.09	0.05	*<0.02*	*<0.05*	*<0.05*	0.79	1.41	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	21 Feb 2022	0902_SW002_2202211800	Normal	NSW_0902_PFASMGMT		1.30	*25.6*	10.7	**36.3**	50.6	1.54	1.36	0.50	0.05	0.6	1.09	3.87	0.84	0.61	0.63	0.16	0.05	*<0.02*	*<0.05*	*<0.05*	0.58	1.10	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	21 Feb 2022	0902_SW002_2202212000	Normal	NSW_0902_PFASMGMT		0.30	*8.05*	2.91	**11.0**	14.5	0.51	0.37	0.16	*<0.02*	0.1	0.26	1.07	0.20	0.08	0.11	0.05	0.02	*<0.02*	*<0.05*	*<0.05*	0.12	0.21	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	22 Feb 2022	0902_SW002_2202221000	Normal	NSW_0902_PFASMGMT		1.19	*25.0*	9.92	**34.9**	49.0	1.72	1.54	0.68	0.04	0.6	1.02	3.82	0.76	0.47	0.50	0.14	0.05	*<0.02*	*<0.05*	*<0.05*	0.44	1.07	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	22 Feb 2022	0902_SW002_2202221200	Normal	NSW_0902_PFASMGMT		0.28	*8.23*	3.15	**11.4**	14.8	0.53	0.39	0.14	*<0.02*	0.1	0.24	1.03	0.18	0.07	0.09	0.05	0.02	*<0.02*	*<0.05*	*<0.05*	0.11	0.20	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	22 Feb 2022	0902_SW002_2202221400	Normal	NSW_0902_PFASMGMT		0.27	*10.7*	2.53	**13.2**	17.0	0.42	0.30	0.17	0.04	0.2	0.29	0.84	0.16	0.17	0.22	0.09	0.03	*<0.02*	*<0.05*	*<0.05*	0.10	0.50	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	22 Feb 2022	0902_SW002_2202221800	Normal	NSW_0902_PFASMGMT		0.66	*15.0*	7.81	**22.8**	32.1	1.72	1.41	0.37	0.02	0.4	0.61	2.88	0.40	0.14	0.14	0.06	0.02	*<0.02*	*<0.05*	*<0.05*	0.15	0.28	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	22 Feb 2022	0902_SW002_2202222200	Normal	NSW_0902_PFASMGMT		0.62	*16.2*	8.62	**24.8**	34.4	1.69	1.44	0.53	0.03	0.4	0.62	2.96	0.41	0.14	0.15	0.07	0.03	*<0.02*	*<0.05*	*<0.05*	0.16	0.30	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	23 Feb 2022	0902_SW002_2202230200	Normal	NSW_0902_PFASMGMT		0.66	*16.2*	8.80	**25.0**	34.8	1.75	1.49	0.44	0.02	0.4	0.64	3.09	0.43	0.15	0.14	0.06	0.02	*<0.02*	*<0.05*	*<0.05*	0.17	0.31	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	23 Feb 2022	0902_SW002_2202231000	Normal	NSW_0902_PFASMGMT		1.10	*26.7*	10.7	**37.4**	53.4	2.27	1.84	0.81	0.10	0.7	1.11	3.68	0.72	0.54	0.66	0.26	0.12	0.02	*<0.05*	*<0.05*	0.35	1.68	*<0.05*	0.04	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	23 Feb 2022	0902_SW002_2202231400	Normal	NSW_0902_PFASMGMT		1.13	*30.8*	11.9	**42.7**	59.5	2.44	1.99	0.82	0.09	0.7	1.18	4.02	0.75	0.56	0.68	0.26	0.11	0.02	*<0.05*	*<0.05*	0.33	1.71	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	27 May 2022	0902_SW002_220527	Normal	NSW_0902_PFASOMP		2.98	*66.1*	40.5	**107**	137	4.80	5.75	2.96	0.02	1.4	*<0.02*	9.94	2.13	0.18	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.19	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	08 Nov 2022	0902_SW002_221108	Normal	NSW_0902_PFASOMP		1.07	*26.8*	16.3	**43.1**	55.1	2.02	2.42	1.26	*<0.02*	0.5	0.77	3.23	0.62	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	08 May 2023	0902_SW002_230508	Normal	NSW_0902_PFASOMP_23		0.30	*8.65*	3.13	**11.8**	14.8	0.50	0.48	0.26	*<0.02*	0.1	0.23	0.82	0.16	0.03	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	04 Jul 2017	0902_SW003_040717	Normal	NSW_0902_PFAS		3.34	*52.7*	23.4	**76.1**	157	3.95	3.44	1.70	*<0.02*	2.4	2.63	15.1	2.27	0.98	0.57	0.04	*<0.02*	*<0.02*	*<0.05*	*<0.05*	43.4	1.08	*<0.05*	0.05	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	15 Jan 2018	0902_SW003_180115	Normal	NSW_0902_PFAS		2.10	*22.2*	6.10	**28.3**	45.5	0.87	0.71	0.46	0.05	0.5	1.82	3.17	1.53	1.20	0.59	0.06	*<0.02*	*<0.02*	*<0.05*	*<0.05*	3.45	0.64	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	15 Jan 2018	0902_QC212_180115	Interlab_D	NSW_0902_PFAS		1.7	*14*	4.7	-	-	0.73	0.68	0.48	*<0.02*	0.60	1.5	2.6	1.4	0.97	0.30	0.02	*<0.05*	*<0.1*	*<0.5*	*<0.01*	2.9	0.44	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW003	27 Feb 2018	0902_SW003_270218	Normal	NSW_0902_PFAS		2.22	*37.2*	16.2	**53.4**	76.7	3.47	2.70	1.33	*<0.02*	0.7	2.26	4.57	1.60	1.02	0.45	0.04	*<0.02*	*<0.02*	*<0.05*	*<0.05*	2.21	0.72	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	27 Feb 2018	0902_QC120_270218	Field_D	NSW_0902_PFAS		1.98	*35.0*	17.1	**52.1**	73.5	3.16	2.43	1.28	*<0.02*	0.8	2.08	4.08	1.37	0.84	0.41	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	2.31	0.65	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	11 Nov 2019	0902_SW003_191111	Normal	NSW_0902_PFASOMP		0.77	*15.8*	8.37	**24.2**	32.7	1.21	0.94	0.50	*<0.02*	0.4	0.82	2.24	0.37	0.33	0.26	0.05	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.44	0.24	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	14 May 2020	0902_SW003_200514	Normal	NSW_0902_PFASOMP		0.65	*21.2*	6.56	**27.8**	34.9	0.87	0.90	0.68	0.05	0.2	0.50	1.68	0.26	0.26	0.39	0.05	0.02	*<0.02*	*<0.05*	*<0.05*	0.24	0.34	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	13 Nov 2020	0902_SW003_201113	Normal	NSW_0902_PFASOMP		0.38	*15.7*	5.85	**21.6**	26.3	0.66	0.71	0.41	0.05	0.2	0.35	1.50	0.17	0.06	0.06	0.04	0.03	*<0.02*	*<0.05*	*<0.05*	0.06	0.09	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	05 May 2021	0902_SW003_210505	Normal	NSW_0902_PFASOMP		0.58	*6.41*	2.82	**9.23**	17.2	1.63	0.86	0.43	0.03	0.4	0.70	1.87	0.38	0.34	0.18	0.05	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.33	0.14	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	29 Nov 2021	0902_SW003_211129	Normal	NSW_0902_PFASOMP		0.84	*33.6*	13.5	**47.1**	57.2	1.63	1.71	0.89	0.03	0.4	0.80	3.18	0.45	0.10	0.04	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	29 Nov 2021	0902_QC211_211129	Interlab_D	NSW_0902_PFASOMP		1.0	*29*	12	**41**	52	1.6	1.5	0.83	*<0.02*	0.67	0.93	3.6	0.58	0.12	0.04	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.07	0.04	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW003	30 May 2022	0902_SW003_220530	Normal	NSW_0902_PFASOMP		3.49	*74.0*	54.9	**129**	167	5.86	5.64	3.20	0.07	1.4	3.28	12.4	2.04	0.23	0.09	0.05	0.03	*<0.02*	*<0.05*	*<0.05*	0.25	0.11	*<0.05*	0.04	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	30 May 2022	0902_QC109_220530	Field_D	NSW_0902_PFASOMP		2.69	*60.6*	36.7	**97.3**	128	4.47	5.19	2.47	0.09	1.3	2.19	9.33	2.11	0.20	0.08	0.04	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.20	0.12	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	08 Nov 2022	0902_SW003_221108	Normal	NSW_0902_PFASOMP		1.25	*28.6*	17.6	**46.2**	60.4	2.25	2.77	1.57	0.03	0.5	0.91	3.83	0.72	0.10	0.06	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	0.08	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	08 May 2023	0902_SW003_230508	Normal	NSW_0902_PFASOMP_23		0.39	*9.42*	3.87	**13.3**	17.4	0.66	0.64	0.31	0.02	0.2	0.33	1.08	0.20	0.09	0.07	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	04 Jul 2017	0902_SW005_040717	Normal	NSW_0902_PFAS		*<0.01*	*0.08*	0.04	0.12	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	15 Jan 2018	0902_SW005_180115	Normal	NSW_0902_PFAS		*<0.01*	*0.20*	0.07	0.27	0.27	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	08 Nov 2019	0902_SW005_191108	Normal	NSW_0902_PFASOMP		*<0.01*	*0.11*	0.02	0.13	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T9 - Historical Surface Water Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
SW005	14 May 2020	0902_SW005_200514	Normal	NSW_0902_PFASOMP		*<0.01*	*0.08*	0.07	0.15	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	14 May 2020	0902_QC106_200514	Field_D	NSW_0902_PFASOMP		*<0.01*	*0.11*	0.07	0.18	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	12 Nov 2020	0902_SW005_201112	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.02	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	12 Nov 2020	0902_QC104_201112	Field_D	NSW_0902_PFASOMP		*<0.01*	*0.04*	*<0.02*	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	06 May 2021	0902_SW005_210506	Normal	NSW_0902_PFASOMP		*<0.01*	*0.05*	0.08	0.13	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	25 Nov 2021	0902_SW005_211125	Normal	NSW_0902_PFASOMP		*<0.01*	*0.16*	0.10	0.26	0.29	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	26 May 2022	0902_SW005_220526	Normal	NSW_0902_PFASOMP		0.01	*0.19*	0.20	0.39	0.42	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	11 Nov 2022	0902_SW005_221111	Normal	NSW_0902_PFASOMP		*<0.01*	*0.19*	0.08	0.27	0.27	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	11 May 2023	0902_SW005_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.20*	0.08	0.28	0.28	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	04 Jul 2017	0902_SW007_040717	Normal	NSW_0902_PFAS		0.01	*0.12*	0.11	0.23	0.29	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	15 Jan 2018	0902_SW007_180115	Normal	NSW_0902_PFAS		*<0.01*	*0.10*	0.08	0.18	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	08 Nov 2019	0902_SW007_191108	Normal	NSW_0902_PFASOMP		*<0.01*	*0.12*	0.14	0.26	0.32	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	14 May 2020	0902_SW007_200514	Normal	NSW_0902_PFASOMP		*<0.01*	*0.05*	0.09	0.14	0.18	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	14 May 2020	0902_QC206_200514	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*0.038*	0.064	-	-	0.017	0.012	*<0.01*	*<0.01*	*<0.05*	*<0.02*	0.014	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
SW007	12 Nov 2020	0902_SW007_201112	Normal	NSW_0902_PFASOMP		*<0.01*	*0.10*	0.06	0.16	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	12 Nov 2020	0902_QC204_201112	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*0.062*	0.042	-	-	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
SW007	06 May 2021	0902_SW007_210506	Normal	NSW_0902_PFASOMP		*<0.01*	*0.05*	0.07	0.12	0.16	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	29 Nov 2021	0902_SW007_211129	Normal	NSW_0902_PFASOMP		*<0.01*	*0.07*	0.08	0.15	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	26 May 2022	0902_SW007_220526	Normal	NSW_0902_PFASOMP		*<0.01*	*0.10*	0.22	0.32	0.43	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	26 May 2022	0902_QC105_220526	Field_D	NSW_0902_PFASOMP		0.01	*0.09*	0.22	0.31	0.43	0.03	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	11 Nov 2022	0902_SW007_221111	Normal	NSW_0902_PFASOMP		*<0.01*	*0.14*	0.15	0.29	0.29	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	11 May 2023	0902_SW007_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.06*	0.10	0.16	0.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	03 Jul 2017	0902_SW008_030717	Normal	NSW_0902_PFAS		0.02	*0.24*	0.13	0.37	0.44	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	15 Jan 2018	0902_SW008_180115	Normal	NSW_0902_PFAS		0.02	*0.34*	0.07	0.41	0.46	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	27 Feb 2018	0902_SW008_270218	Normal	NSW_0902_PFAS		0.01	*0.67*	0.10	0.77	0.82	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	08 Nov 2019	0902_SW008_191108	Normal	NSW_0902_PFASOMP		0.05	*1.01*	0.35	1.36	1.84	0.04	0.04	0.03	*<0.02*	*<0.1*	0.06	0.14	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	13 May 2020	0902_SW008_200513	Normal	NSW_0902_PFASOMP		0.013	*0.072*	0.1	-	-	0.022	0.017	*<0.01*	*<0.01*	*<0.05*	*<0.02*	0.015	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
SW008	13 May 2020	0902_QC208_200513	Interlab_D	NSW_0902_PFASOMP		0.01	*0.12*	0.14	0.26	0.35	0.06	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	12 Nov 2020	0902_SW008_201112	Normal	NSW_0902_PFASOMP		0.02	*0.20*	0.08	0.28	0.30	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	06 May 2021	0902_SW008_210506	Normal	NSW_0902_PFASOMP		0.02	*0.19*	0.35	0.54	0.75	0.07	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	29 Nov 2021	0902_SW008_211129	Normal	NSW_0902_PFASOMP		*<0.01*	*0.08*	0.05	0.13	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	29 Nov 2021	0902_QC113_211129	Field_D	NSW_0902_PFASOMP		*<0.01*	*0.11*	0.05	0.16	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	26 May 2022	0902_SW008_220526	Normal	NSW_0902_PFASOMP		*<0.01*	*0.09*	0.24	0.33	0.41	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	11 Nov 2022	0902_SW008_221111	Normal	NSW_0902_PFASOMP		0.01	*0.20*	0.16	0.36	0.44	0.02	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	11 Nov 2022	0902_QC113_221111	Field_D	NSW_0902_PFASOMP		0.02	*0.23*	0.16	0.39	0.44	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	11 May 2023	0902_SW008_230511	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.12*	0.04	0.16	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	03 Jul 2017	0902_SW009_030717	Normal	NSW_0902_PFAS		0.54	*16.3*	4.98	**21.3**	25.6	0.76	0.76	0.42	*<0.02*	*<0.1*	0.22	0.97	0.23	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.28	0.06	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	15 Jan 2018	0902_SW009_180115	Normal	NSW_0902_PFAS		0.06	*1.37*	0.45	1.82	2.42	0.06	0.05	0.03	*<0.02*	*<0.1*	0.06	0.15	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.16	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	15 Jan 2018	0902_QC113_180115	Field_D	NSW_0902_PFAS		0.06	*1.38*	0.44	1.82	2.38	0.05	0.05	0.04	*<0.02*	*<0.1*	0.05	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.15	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	02 Feb 2018	0902_SW09_050218	Normal	NSW_0902_PFAS		0.06	*1.10*	0.31	1.41	1.83	0.04	0.03	0.02	*<0.02*	*<0.1*	*<0.02*	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	02 Feb 2018	0902_SW09_050218_a	Normal	NSW_0902_PFAS		0.13	*2.91*	0.67	**3.58**	4.68	0.07	0.06	0.05	*<0.02*	*<0.1*	0.08	0.26	0.07	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.23	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	27 Feb 2018	0902_SW009_270218	Normal	NSW_0902_PFAS		0.05	*2.91*	0.49	**3.40**	3.85	0.07	0.05	0.05	*<0.02*	*<0.1*	0.03	0.11	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	04 Nov 2019	0902_SW009_191104	Normal	NSW_0902_PFASOMP		0.05	*1.06*	0.35	1.41	1.91	0.04	0.05	0.03	*<0.02*	*<0.1*	0.06	0.13	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 May 2020	0902_SW009_200514	Normal	NSW_0902_PFASOMP		0.02	*0.53*	0.25	0.78	0.98	0.04	0.02	*<0.02*	0.02	*<0.1*	0.03	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 May 2020	0902_QC109_200514	Field_D	NSW_0902_PFASOMP		0.04	*0.81*	0.43	1.24	1.62	0.06	0.04	0.03	0.04	*<0.1*	0.04	0.11	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	11 Jun 2020	0902_SW009_200611	Normal	NSW_0902_PFASMGMT		0.12	*2.46*	1.12	**3.58**	5.29	0.14	0.21	0.08	*<0.02*	*<0.1*	0.12	0.46	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.51	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	11 Jun 2020	0902_QC101_200611	Field_D	NSW_0902_PFASMGMT		0.13	*2.54*	1.20	**3.74**	5.56	0.13	0.22	0.09	*<0.02*	*<0.1*	0.13	0.50	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.54	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140650	Normal	NSW_0902_PFASMGMT		0.08	*1.99*	0.61	**2.60**	3.33	0.07	0.07	0.04	*<0.02*	*<0.1*	0.08	0.19	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.17	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140715	Normal	NSW_0902_PFASMGMT		0.08	*2.55*	0.66	**3.21**	3.95	0.07	0.07	0.05	*<0.02*	*<0.1*	0.07	0.18	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.18	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140730	Normal	NSW_0902_PFASMGMT		0.08	*2.20*	0.67	**2.87**	3.59	0.07	0.08	0.05	*<0.02*	*<0.1*	0.07	0.18	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.16	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140745	Normal	NSW_0902_PFASMGMT		0.07	*2.43*	0.60	**3.03**	3.66	0.06	0.07	0.04	0.02	*<0.1*	0.06	0.16	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140800	Normal	NSW_0902_PFASMGMT		0.03	*0.96*	0.29	1.25	1.45	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	0.03	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140815	Normal	NSW_0902_PFASMGMT		0.03	*0.74*	0.25	0.99	1.16	0.04	0.02	*<0.02*	*<0.02*	*<0.1*	0.02	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T9 - Historical Surface Water Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water							**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																																
SW009	14 Jul 2020	0902_SW009_2007140845	Normal	NSW_0902_PFASMGMT			0.03	*0.73*	0.26	0.99	1.18	0.04	0.02	*<0.02*	*<0.02*	*<0.1*	0.03	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140915	Normal	NSW_0902_PFASMGMT			0.02	*0.69*	0.34	1.03	1.33	0.07	0.05	*<0.02*	*<0.02*	*<0.1*	0.04	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140945	Normal	NSW_0902_PFASMGMT			0.02	*0.67*	0.34	1.01	1.32	0.07	0.05	*<0.02*	*<0.02*	*<0.1*	0.04	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007141045	Normal	NSW_0902_PFASMGMT			0.03	*1.14*	0.44	1.58	2.06	0.06	0.06	0.03	*<0.02*	*<0.1*	0.05	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007141145	Normal	NSW_0902_PFASMGMT			0.04	*1.54*	0.45	1.99	2.51	0.06	0.05	0.03	*<0.02*	*<0.1*	0.05	0.15	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_QC204_200714	Interlab_D	NSW_0902_PFASMGMT			0.07	*2.3*	0.79	**3.1**	4.0	0.07	0.08	0.05	*<0.02*	0.08	0.08	0.19	0.04	0.01	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.23	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	14 Jul 2020	0902_QC205_200714	Interlab_D	NSW_0902_PFASMGMT			0.03	*0.95*	0.31	1.3	1.5	0.03	0.03	0.02	*<0.02*	0.03	0.03	0.07	0.02	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	07 Aug 2020	0902_SW009_2008071245	Normal	NSW_0902_PFASMGMT			0.27	*4.74*	2.53	**7.27**	9.58	0.32	0.34	0.15	*<0.02*	0.1	0.21	0.73	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071300	Normal	NSW_0902_PFASMGMT			0.26	*5.28*	2.40	**7.68**	9.94	0.33	0.31	0.14	*<0.02*	0.1	0.21	0.72	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071315	Normal	NSW_0902_PFASMGMT			0.26	*5.73*	2.48	**8.21**	10.5	0.34	0.33	0.15	*<0.02*	0.1	0.20	0.74	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071345	Normal	NSW_0902_PFASMGMT			0.29	*5.76*	2.60	**8.36**	10.8	0.36	0.35	0.15	*<0.02*	0.1	0.23	0.79	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.09	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071415	Normal	NSW_0902_PFASMGMT			0.28	*7.92*	2.53	**10.4**	12.8	0.33	0.34	0.15	*<0.02*	0.1	0.21	0.77	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.09	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071445	Normal	NSW_0902_PFASMGMT			0.20	*4.99*	1.82	**6.81**	8.42	0.23	0.23	0.11	*<0.02*	*<0.1*	0.15	0.54	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071515	Normal	NSW_0902_PFASMGMT			0.15	*4.64*	1.30	**5.94**	7.06	0.17	0.16	0.08	0.02	*<0.1*	0.10	0.38	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071615	Normal	NSW_0902_PFASMGMT			0.15	*4.92*	1.34	**6.26**	7.43	0.18	0.17	0.08	0.03	*<0.1*	0.11	0.39	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071715	Normal	NSW_0902_PFASMGMT			0.20	*5.37*	1.95	**7.32**	9.06	0.26	0.23	0.12	0.03	*<0.1*	0.16	0.57	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_QC206_200807	Interlab_D	NSW_0902_PFASMGMT			0.25	*4.9*	2.6	**7.6**	9.8	0.30	0.29	0.17	*<0.02*	0.1	0.2	0.72	0.11	0.01	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.11	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	07 Aug 2020	0902_QC207_200807	Interlab_D	NSW_0902_PFASMGMT			0.25	*5.0*	2.4	**7.4**	9.6	0.31	0.27	0.15	*<0.02*	0.1	0.2	0.68	0.11	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.10	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	08 Sep 2020	0902_SW009_200908	Normal	NSW_0902_PFASMGMT			0.19	*5.21*	1.47	**6.68**	8.09	0.18	0.18	0.17	*<0.02*	*<0.1*	0.12	0.39	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	08 Sep 2020	0902_QC108_200908	Field_D	NSW_0902_PFASMGMT			0.18	*5.20*	1.49	**6.69**	8.04	0.16	0.19	0.14	*<0.02*	*<0.1*	0.11	0.39	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	28 Oct 2020	0902_SW009_2010281650	Normal	NSW_0902_PFASMGMT			0.05	*2.98*	0.53	**3.51**	4.08	0.07	0.06	0.04	*<0.02*	*<0.1*	0.06	0.16	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	12 Nov 2020	0902_SW009_201112	Normal	NSW_0902_PFASOMP			0.14	*3.57*	1.47	**5.04**	6.40	0.19	0.19	0.10	*<0.02*	*<0.1*	0.13	0.41	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.13	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101290845	Normal	NSW_0902_PFASMGMT			0.15	*3.67*	1.29	**4.96**	6.27	0.13	0.11	0.11	*<0.02*	0.1	0.10	0.39	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.16	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101290915	Normal	NSW_0902_PFASMGMT			0.15	*3.61*	1.30	**4.91**	6.28	0.14	0.11	0.11	*<0.02*	0.1	0.12	0.41	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.17	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101291000	Normal	NSW_0902_PFASMGMT			0.14	*3.44*	1.28	**4.72**	6.07	0.14	0.11	0.11	*<0.02*	0.1	0.12	0.41	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.16	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101291045	Normal	NSW_0902_PFASMGMT			0.14	*3.49*	1.22	**4.71**	6.01	0.13	0.10	0.11	*<0.02*	0.1	0.11	0.39	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.16	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101291130	Normal	NSW_0902_PFASMGMT			0.15	*4.17*	1.27	**5.44**	6.67	0.13	0.11	0.10	*<0.02*	*<0.1*	0.12	0.39	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.17	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101291215	Normal	NSW_0902_PFASMGMT			0.14	*3.70*	1.22	**4.92**	6.08	0.13	0.10	0.07	*<0.02*	*<0.1*	0.11	0.38	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.17	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101291300	Normal	NSW_0902_PFASMGMT			0.11	*3.31*	1.14	**4.45**	5.55	0.12	0.10	0.10	*<0.02*	*<0.1*	0.10	0.36	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.16	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101291345	Normal	NSW_0902_PFASMGMT			0.11	*3.44*	1.01	**4.45**	5.41	0.11	0.11	0.08	*<0.02*	*<0.1*	0.10	0.28	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.14	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101291430	Normal	NSW_0902_PFASMGMT			0.07	*2.60*	0.73	**3.33**	3.98	0.09	0.08	0.06	*<0.02*	*<0.1*	0.06	0.18	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.09	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101291515	Normal	NSW_0902_PFASMGMT			0.08	*3.28*	0.83	**4.11**	4.82	0.09	0.09	0.07	*<0.02*	*<0.1*	0.07	0.20	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.09	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_QC111_210129	Field_D	NSW_0902_PFASMGMT			0.15	*3.54*	1.31	**4.85**	6.18	0.14	0.11	0.11	*<0.02*	0.1	0.09	0.41	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.16	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_QC112_210129	Field_D	NSW_0902_PFASMGMT			0.14	*3.58*	1.20	**4.78**	5.96	0.13	0.10	0.10	*<0.02*	*<0.1*	0.11	0.38	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.16	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_QC210_210129	Interlab_D	NSW_0902_PFASMGMT			0.15	*4.1*	1.4	**5.6**	7.1	0.16	0.16	0.14	*<0.02*	0.1	0.2	0.36	0.08	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.19	0.03	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	29 Jan 2021	0902_QC211_210129	Interlab_D	NSW_0902_PFASMGMT			0.13	*3.7*	1.2	**4.9**	6.2	0.14	0.15	0.12	*<0.02*	0.1	0.1	0.30	0.06	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.17	0.03	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	06 May 2021	0902_SW009_210506	Normal	NSW_0902_PFASOMP			0.14	*3.84*	1.73	**5.57**	6.95	0.27	0.24	0.11	*<0.02*	*<0.1*	0.11	0.44	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111260835	Normal	NSW_0902_PFASMGMT			0.01	*0.38*	0.11	0.49	0.56	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111260850	Normal	NSW_0902_PFASMGMT			*<0.01*	*0.30*	0.08	0.38	0.43	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111260905	Normal	NSW_0902_PFASMGMT			0.01	*0.24*	0.06	0.30	0.33	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111260920	Normal	NSW_0902_PFASMGMT			*<0.01*	*0.29*	0.07	0.36	0.39	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111260950	Normal	NSW_0902_PFASMGMT			0.02	*0.60*	0.12	0.72	0.77	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111261020	Normal	NSW_0902_PFASMGMT			0.02	*0.92*	0.09	1.01	1.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111261050	Normal	NSW_0902_PFASMGMT			0.01	*0.39*	0.09	0.48	0.52	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111261120	Normal	NSW_0902_PFASMGMT			0.01	*0.72*	0.08	0.80	0.83	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111261220	Normal	NSW_0902_PFASMGMT			*<0.01*	*0.14*	0.03	0.17	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111261320	Normal	NSW_0902_PFASMGMT			*<0.01*	*0.15*	0.06	0.21	0.23	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_QC101_211126	Field_D	NSW_0902_PFASMGMT			*<0.01*	*0.32*	0.10	0.42	0.47	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_QC201_211126	Interlab_D	NSW_0902_PFASMGMT			0.01	*0.46*	0.11	0.57	0.61	*<0.01*	*<0.01*	0.01	*<0.02*	*<0.02*	*<0.02*	0.02	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	29 Nov 2021	0902_SW009_211129	Normal	NSW_0902_PFASOMP			0.14	*6.19*	1.79	**7.98**	9.25	0.23	0.16	0.11	*<0.02*	*<0.1*	0.10	0.46	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Nov 2021	0902_QC214_211129	Interlab_D	NSW_0902_PFASOMP			0.15	*12*	1.7	**14**	15	0.16	0.18	0.13	*<0.02*	0.2	0.09	0.32	0.05	0.01	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	18 Jan 2022	0902_SW009_220118	Normal	NSW_0902_PFASMGMT			0.18	*4.42*	2.30	**6.72**	8.44	0.28	0.27	0.15	*<0.02*	*<0.1*	0.12	0.59	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.05	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T9 - Historical Surface Water Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
SW009	21 Feb 2022	0902_SW009_2202211800	Normal	NSW_0902_PFASMGMT		0.08	*2.75*	0.92	**3.67**	4.51	0.12	0.10	0.04	*<0.02*	*<0.1*	0.07	0.27	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	21 Feb 2022	0902_SW009_2202212000	Normal	NSW_0902_PFASMGMT		0.11	*3.32*	1.06	**4.38**	5.53	0.14	0.11	0.05	*<0.02*	*<0.1*	0.08	0.31	0.05	0.03	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	22 Feb 2022	0902_SW009_2202220800	Normal	NSW_0902_PFASMGMT		0.09	*2.66*	0.99	**3.65**	4.53	0.14	0.10	0.04	*<0.02*	*<0.1*	0.07	0.29	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	22 Feb 2022	0902_SW009_2202221200	Normal	NSW_0902_PFASMGMT		0.03	*0.91*	0.46	1.37	1.63	0.05	0.04	0.03	*<0.02*	*<0.10*	*<0.02*	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	22 Feb 2022	0902_SW009_2202221400	Normal	NSW_0902_PFASMGMT		0.04	*1.55*	0.48	**2.03**	2.52	0.07	0.05	0.02	*<0.02*	*<0.1*	0.04	0.15	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	22 Feb 2022	0902_SW009_2202221600	Normal	NSW_0902_PFASMGMT		0.04	*1.30*	0.58	1.88	2.36	0.09	0.06	*<0.02*	*<0.02*	*<0.1*	0.04	0.15	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	23 Feb 2022	0902_SW009_2202230000	Normal	NSW_0902_PFASMGMT		0.05	*1.44*	0.68	**2.12**	2.72	0.11	0.08	0.03	*<0.02*	*<0.1*	0.04	0.20	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	23 Feb 2022	0902_SW009_2202230200	Normal	NSW_0902_PFASMGMT		0.06	*1.68*	0.79	**2.47**	3.15	0.12	0.09	0.02	*<0.02*	*<0.1*	0.06	0.23	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	23 Feb 2022	0902_SW009_2202231000	Normal	NSW_0902_PFASMGMT		0.05	*1.67*	0.66	**2.33**	2.93	0.11	0.08	0.02	*<0.02*	*<0.1*	0.05	0.20	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	23 Feb 2022	0902_SW009_2202231400	Normal	NSW_0902_PFASMGMT		0.07	*2.36*	0.91	**3.27**	4.08	0.15	0.10	0.04	*<0.02*	*<0.1*	0.07	0.27	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	04 Jul 2017	0902_SW011_040717	Normal	NSW_0902_PFAS		0.53	*16.0*	6.28	**22.3**	27.3	0.77	0.74	0.46	*<0.02*	*<0.1*	0.27	1.17	0.24	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.72	0.07	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	04 Jul 2017	0902_QC205_040717	Interlab_D	NSW_0902_PFAS		0.37	*9.0*	3.6	-	-	0.51	0.49	0.39	*<0.02*	0.2	0.23	0.95	0.14	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.73	0.03	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW011	15 Jan 2018	0902_SW011_180115	Normal	NSW_0902_PFAS		0.52	*16.0*	3.40	**19.4**	24.0	0.42	0.38	0.34	0.03	0.2	0.50	1.24	0.23	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.40	0.21	*<0.05*	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	15 Jan 2018	0902_QC213_180115	Interlab_D	NSW_0902_PFAS		0.38	*12*	2.7	-	-	0.37	0.35	0.38	*<0.02*	0.30	0.41	1.0	0.23	0.04	0.03	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.39	0.15	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW011	27 Feb 2018	0902_SW011_270218	Normal	NSW_0902_PFAS		0.10	*4.21*	0.74	**4.95**	5.68	0.09	0.08	0.09	*<0.02*	*<0.1*	0.07	0.16	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	27 Feb 2018	0902_QC220_270218	Interlab_D	NSW_0902_PFAS		0.08	*2.7*	0.69	-	-	0.1	0.10	0.08	*<0.02*	0.09	0.1	0.19	0.04	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.1	0.02	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW011	08 Nov 2019	0902_SW011_191108	Normal	NSW_0902_PFASOMP		0.10	*3.26*	0.77	**4.03**	4.98	0.08	0.09	0.06	*<0.02*	*<0.1*	0.13	0.27	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.18	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	15 May 2020	0902_SW011_200515	Normal	NSW_0902_PFASOMP		0.13	*4.56*	1.35	**5.91**	6.93	0.12	0.16	0.11	*<0.02*	*<0.1*	0.12	0.32	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	12 Nov 2020	0902_SW011_201112	Normal	NSW_0902_PFASOMP		0.12	*4.02*	1.30	**5.32**	6.52	0.16	0.16	0.10	*<0.02*	*<0.1*	0.11	0.37	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	07 Apr 2021	0902_QC204_210507	Interlab_D	NSW_0902_PFASOMP		0.024	*1.3*	0.33	-	-	0.054	0.041	0.019	*<0.01*	*<0.05*	0.027	0.08	0.015	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	0.022	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
SW011	07 May 2021	0902_SW011_210507	Normal	NSW_0902_PFASOMP		0.04	*1.38*	0.39	1.77	2.15	0.07	0.06	0.04	*<0.02*	*<0.1*	0.04	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	29 Nov 2021	0902_SW011_211129	Normal	NSW_0902_PFASOMP		0.14	*6.22*	1.75	**7.97**	9.16	0.19	0.17	0.12	*<0.02*	*<0.1*	0.10	0.42	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	27 May 2022	0902_SW011_220527	Normal	NSW_0902_PFASOMP		0.37	*12.0*	5.28	**17.3**	21.2	0.61	0.57	0.40	*<0.02*	0.1	0.32	1.27	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	27 May 2022	0902_QC205_220527	Interlab_D	NSW_0902_PFASOMP		0.31	*7.9*	3.1	**11**	14	0.49	0.46	0.23	*<0.02*	0.1	0.2	0.86	0.15	0.01	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW011	11 Nov 2022	0902_SW011_221111	Normal	NSW_0902_PFASOMP		0.42	*11.9*	5.44	**17.3**	21.2	0.58	0.67	0.36	*<0.02*	0.1	0.28	1.16	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	11 May 2023	0902_SW011_230511	Normal	NSW_0902_PFASOMP_23		0.04	*2.02*	0.40	**2.42**	2.80	0.06	0.04	0.03	*<0.02*	*<0.1*	0.04	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	03 Jul 2017	0902_SW013_030717	Normal	NSW_0902_PFAS		0.10	*0.76*	2.23	**2.99**	4.55	0.36	0.34	0.05	*<0.02*	0.2	0.10	0.32	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	15 Jan 2018	0902_SW013_180115	Normal	NSW_0902_PFAS		0.17	*0.87*	3.48	**4.35**	7.85	0.68	0.50	0.11	*<0.02*	0.7	0.26	0.90	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	08 Nov 2019	0902_SW013_191108	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	*<0.02*	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	14 May 2020	0902_SW013_200514	Normal	NSW_0902_PFASOMP		0.01	*0.18*	0.22	0.40	0.52	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	0.02	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	12 Nov 2020	0902_SW013_201112	Normal	NSW_0902_PFASOMP		0.01	*0.20*	0.22	0.42	0.52	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	06 May 2021	0902_SW013_210506	Normal	NSW_0902_PFASOMP		*<0.01*	*0.16*	0.14	0.30	0.45	*<0.02*	*<0.02*	*<0.02*	*<0.02*	0.1	0.02	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	29 Nov 2021	0902_SW013_211129	Normal	NSW_0902_PFASOMP		0.01	*0.20*	0.19	0.39	0.52	0.04	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	29 Nov 2021	0902_QC115_211129	Field_D	NSW_0902_PFASOMP		0.01	*0.19*	0.22	0.41	0.56	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	0.02	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	27 May 2022	0902_SW013_220527	Normal	NSW_0902_PFASOMP		0.01	*0.17*	0.32	0.49	0.78	0.08	0.04	*<0.02*	*<0.02*	0.1	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	18 Nov 2022	0902_SW013_221118	Normal	NSW_0902_PFASOMP		*<0.01*	*0.14*	0.21	0.35	0.46	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	11 May 2023	0902_SW013_230511	Normal	NSW_0902_PFASOMP_23		0.04	*0.38*	0.76	1.14	1.58	0.13	0.11	*<0.02*	*<0.02*	*<0.1*	0.03	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	03 Jul 2017	0902_SW014_030717	Normal	NSW_0902_PFAS		0.03	*0.44*	0.33	0.77	0.96	0.05	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	15 Jan 2018	0902_SW014_180115	Normal	NSW_0902_PFASOMP		0.03	*0.30*	0.29	0.59	0.83	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	0.04	0.09	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	08 Nov 2019	0902_SW014_191108	Normal	NSW_0902_PFASOMP		0.02	*0.07*	1.30	1.37	2.56	0.35	0.35	0.02	*<0.02*	*<0.1*	0.06	0.37	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	08 Nov 2019	0902_QC104_191108	Field_D	NSW_0902_PFASOMP		0.02	*0.22*	0.15	0.37	0.46	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.02	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	14 May 2020	0902_SW014_200514	Normal	NSW_0902_PFASOMP		0.01	*0.17*	0.08	0.25	0.26	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	12 Nov 2020	0902_SW014_201112	Normal	NSW_0902_PFASOMP		*<0.01*	*0.11*	0.04	0.15	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	06 May 2021	0902_SW014_210506	Normal	NSW_0902_PFASOMP		0.15	*0.60*	3.46	**4.06**	7.68	0.40	0.41	0.10	*<0.02*	0.1	0.39	1.94	0.11	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	06 May 2021	0902_QC102_210506	Field_D	NSW_0902_PFASOMP		0.20	*0.80*	4.80	**5.60**	10.2	0.45	0.64	0.13	*<0.02*	0.1	0.46	2.52	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	25 Nov 2021	0902_SW014_211125	Normal	NSW_0902_PFASOMP		0.02	*0.34*	0.33	0.67	0.95	0.06	0.03	*<0.02*	*<0.02*	*<0.1*	0.02	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	26 May 2022	0902_SW014_220526	Normal	NSW_0902_PFASOMP		0.11	*1.24*	2.28	**3.52**	5.24	0.22	0.22	0.08	*<0.02*	*<0.1*	0.18	0.85	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	11 Nov 2022	0902_SW014_221111	Normal	NSW_0902_PFASOMP		0.06	*1.05*	1.28	**2.33**	3.12	0.10	0.14	0.05	*<0.02*	*<0.1*	0.06	0.35	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	11 May 2023	0902_SW014_230511	Normal	NSW_0902_PFASOMP_23		0.02	*0.45*	0.23	0.68	0.74	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW015	03 Jul 2017	0902_SW015_030717	Normal	NSW_0902_PFAS		0.02	*0.39*	0.49	0.88	1.06	0.06	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Table T9 - Historical Surface Water Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																									
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
SW015	27 Feb 2018	0902_SW015_270218	Normal	NSW_0902_PFAS		<0.01	*0.16*	0.07	0.23	0.23	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	14 May 2020	0902_SW015_200514	Normal	NSW_0902_PFASOMP		<0.01	*0.26*	0.16	0.42	0.42	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	12 Nov 2020	0902_SW015_201112	Normal	NSW_0902_PFASOMP		<0.01	*0.09*	0.08	0.17	0.17	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	05 May 2021	0902_SW015_210505	Normal	NSW_0902_PFASOMP		<0.01	*0.09*	0.13	0.22	0.22	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	29 Nov 2021	0902_SW015_211129	Normal	NSW_0902_PFASOMP		<0.01	*0.08*	0.13	0.21	0.25	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	30 May 2022	0902_SW015_220530	Normal	NSW_0902_PFASOMP		<0.01	*0.24*	0.29	0.53	0.53	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	10 Nov 2022	0902_SW015_221110	Normal	NSW_0902_PFASOMP		<0.01	*0.35*	0.24	0.59	0.59	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	10 May 2023	0902_SW015_230510	Normal	NSW_0902_PFASOMP_23		<0.01	*0.16*	0.23	0.39	0.46	0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	09 Jun 2023	0902_SW015_230609	Normal	NSW_0902_PFASOMP_23		<0.01	*0.14*	0.09	0.23	0.23	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	14 Nov 2009	0902_QC203_191114	Interlab_D	NSW_0902_PFASOMP		<0.01	*0.023*	0.010	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW016	03 Jul 2017	0902_SW016_030717	Normal	NSW_0902_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	15 Jan 2018	0902_SW016_180115	Normal	NSW_0902_PFAS		<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	27 Feb 2018	0902_SW016_270218	Normal	NSW_0902_PFAS		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	14 Nov 2019	0902_SW016_191114	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	14 May 2020	0902_SW016_200514	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	13 Nov 2020	0902_SW016_201113	Normal	NSW_0902_PFASOMP		<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	23 Apr 2021	0902_SW016_210423	Normal	NSW_0902_PFASMGMT		<0.01	*0.02*	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	23 Apr 2021	0902_QC200_210423	Interlab_D	NSW_0902_PFASMGMT		<0.01	*0.03*	0.03	0.06	0.1	0.01	<0.01	<0.01	<0.02	0.02	<0.02	0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW016	05 May 2021	0902_SW016_210505	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	29 Nov 2021	0902_SW016_211129	Normal	NSW_0902_PFASOMP		<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	30 May 2022	0902_SW016_220530	Normal	NSW_0902_PFASOMP		<0.01	*0.06*	0.17	0.23	0.28	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	10 Nov 2022	0902_SW016_221110	Normal	NSW_0902_PFASOMP		0.02	*0.40*	0.58	0.98	1.17	0.05	0.06	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	10 Nov 2022	0902_QC112_221110	Field_D	NSW_0902_PFASOMP		0.02	*0.34*	0.49	0.83	1.00	0.05	0.05	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	10 May 2023	0902_SW016_230510	Normal	NSW_0902_PFASOMP_23		<0.01	*0.05*	0.01	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	09 Jun 2023	0902_SW016_230609	Normal	NSW_0902_PFASOMP_23		0.02	*0.23*	0.19	0.42	0.53	0.04	0.03	<0.02	<0.02	<0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	04 Jul 2017	0902_SW018_040717	Normal	NSW_0902_PFAS		<0.01	*0.05*	0.03	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	15 Jan 2018	0902_SW018_180115	Normal	NSW_0902_PFAS		<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	27 Feb 2018	0902_SW018_270218	Normal	NSW_0902_PFAS		<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	25 Nov 2019	0902_SW018_191125	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	25 Nov 2019	0902_QC111_191125	Field_D	NSW_0902_PFASOMP		<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	15 May 2020	0902_SW018_200515	Normal	NSW_0902_PFASOMP		<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	13 Nov 2020	0902_SW018_201113	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	06 May 2021	0902_SW018_210506	Normal	NSW_0902_PFASOMP		0.04	*0.62*	0.54	1.16	1.54	0.05	0.07	0.03	<0.02	<0.1	0.03	0.14	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	06 May 2021	0902_QC104_210506	Field_D	NSW_0902_PFASOMP		0.04	*0.72*	0.62	1.34	1.75	0.07	0.06	0.04	<0.02	<0.1	0.02	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	29 Nov 2021	0902_SW018_211129	Normal	NSW_0902_PFASOMP		<0.01	*0.11*	0.04	0.15	0.17	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	31 May 2022	0902_SW018_220531	Normal	NSW_0902_PFASOMP		0.02	*0.44*	0.34	0.78	0.98	0.05	0.04	<0.02	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	31 May 2022	0902_QC211_220531	Interlab_D	NSW_0902_PFASOMP		0.02	*0.29*	0.19	0.48	0.64	0.03	0.02	<0.01	<0.02	0.03	<0.02	0.05	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW018	07 Nov 2022	0902_SW018_221107	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	10 May 2023	0902_SW018_230510	Normal	NSW_0902_PFASOMP_23		<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	10 May 2023	0902_QC109_230510	Field_D	NSW_0902_PFASOMP_23		<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	10 May 2023	0902_QC209_230510	Interlab_D	NSW_0902_PFASOMP_23		<0.01	*0.02*	0.02	0.04	0.04	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW019	04 Jul 2017	0902_SW019_040717	Normal	NSW_0902_PFAS		0.02	*0.07*	0.04	0.11	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	15 Jan 2018	0902_SW019_180115	Normal	NSW_0902_PFAS		<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	25 Nov 2019	0902_SW019_191125	Normal	NSW_0902_PFASOMP		0.02	*0.03*	0.02	0.05	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	15 May 2020	0902_SW019_200515	Normal	NSW_0902_PFASOMP		0.01	*0.04*	0.03	0.07	0.11	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	13 Nov 2020	0902_SW019_201113	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	07 May 2021	0902_SW019_210507	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	0.03	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	29 Nov 2021	0902_SW019_211129	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	31 May 2022	0902_SW019_220531	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	0.03	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	31 May 2022	0902_QC111_220531	Field_D	NSW_0902_PFASOMP		<0.01	*0.03*	0.03	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	07 Nov 2022	0902_SW019_221107	Normal	NSW_0902_PFASOMP		0.01	*0.05*	0.04	0.09	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	07 Nov 2022	0902_QC109_221107	Field_D	NSW_0902_PFASOMP		<0.01	*0.04*	0.04	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	07 Nov 2022	0902_QC209_221107	Interlab_D	NSW_0902_PFASOMP		<0.01	*0.04*	0.03	0.07	0.12	<0.01	<0.01	<0.01	<0.02	0.04	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5

Table T9 - Historical Surface Water Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
SW019	10 May 2023	0902_SW019_230510	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.03*	0.02	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW020	13 Nov 2017	0902_SW20_131117	Normal	NSW_0902_PFAS		0.02	*0.06*	0.02	0.08	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW020	15 Jan 2018	0902_SW020_180115	Normal	NSW_0902_PFAS		0.03	*0.06*	*<0.02*	0.06	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW020	25 Nov 2019	0902_SW020_191125	Normal	NSW_0902_PFASOMP		0.02	*0.05*	0.02	0.07	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW020	15 May 2020	0902_SW020_200515	Normal	NSW_0902_PFASOMP		0.01	*0.07*	0.03	0.10	0.14	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW020	13 Nov 2020	0902_SW020_201113	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	*<0.02*	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW020	07 May 2021	0902_SW020_210507	Normal	NSW_0902_PFASOMP		0.01	*0.17*	0.02	0.19	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW020	29 Nov 2021	0902_SW020_211129	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	0.01	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW020	31 May 2022	0902_SW020_220531	Normal	NSW_0902_PFASOMP		0.01	*0.07*	0.04	0.11	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW020	07 Nov 2022	0902_SW020_221107	Normal	NSW_0902_PFASOMP		0.01	*0.06*	0.04	0.10	0.13	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW020	10 May 2023	0902_SW020_230510	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.04*	0.02	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	13 Nov 2017	0902_SW022_180115	Normal	NSW_0902_PFAS		0.01	*0.14*	0.05	0.19	0.31	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	15 Jan 2018	0902_SW022_180115	Normal	NSW_0902_PFAS		0.01	*0.04*	*<0.02*	0.04	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.02	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	15 Nov 2019	0902_SW022_191115	Normal	NSW_0902_PFASOMP		0.04	*0.03*	*<0.02*	0.03	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	15 Nov 2019	0902_QC109_191115	Field_D	NSW_0902_PFASOMP		0.04	*0.04*	*<0.02*	0.04	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	15 May 2020	0902_SW022_200515	Normal	NSW_0902_PFASOMP		0.02	*0.03*	*<0.02*	0.03	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	13 Nov 2020	0902_SW022_201113	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	05 May 2021	0902_SW022_210505	Normal	NSW_0902_PFASOMP		*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	29 Nov 2021	0902_SW022_211129	Normal	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.02	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	30 May 2022	0902_SW022_220530	Normal	NSW_0902_PFASOMP		*<0.01*	*0.04*	0.07	0.11	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	30 May 2022	0902_QC209_220530	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*0.03*	0.05	0.07	0.12	*<0.01*	*<0.01*	*<0.01*	*<0.02*	0.04	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW022	03 Nov 2022	0902_SW022_221103	Normal	NSW_0902_PFASOMP		0.01	*0.05*	0.20	0.25	0.42	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	03 Nov 2022	0902_QC104_221103	Field_D	NSW_0902_PFASOMP		0.01	*0.04*	0.19	0.23	0.39	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	09 May 2023	0902_SW022_230509	Normal	NSW_0902_PFASOMP_23		*<0.01*	*0.04*	0.07	0.11	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	09 May 2023	0902_QC105_230509	Field_D	NSW_0902_PFASOMP_23		*<0.01*	*0.02*	0.05	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW022	09 May 2023	0902_QC205_230509	Interlab_D	NSW_0902_PFASOMP_23		*<0.01*	*0.04*	0.08	0.11	0.14	0.01	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	0.02	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW023	13 Nov 2017	0902_SW23_131117	Normal	NSW_0902_PFAS		0.02	*0.38*	0.10	0.48	0.58	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW023	13 Nov 2017	0902_QC181_131117	Field_D	NSW_0902_PFAS		0.02	*0.38*	0.10	0.48	0.56	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW023	15 Jan 2018	0902_SW023_180115	Normal	NSW_0902_PFAS		0.03	*0.49*	0.19	0.68	0.83	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW023	15 Jan 2018	0902_QC112_180115	Field_D	NSW_0902_PFAS		0.03	*0.54*	0.20	0.74	0.88	0.02	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW023	11 Nov 2019	0902_SW023_191111	Normal	NSW_0902_PFASOMP		0.01	*0.23*	0.06	0.29	0.33	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW023	15 May 2020	0902_SW023_200515	Normal	NSW_0902_PFASOMP		0.01	*0.10*	0.06	0.16	0.19	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW023	13 Nov 2020	0902_SW023_201113	Normal	NSW_0902_PFASOMP		*<0.01*	*0.07*	0.03	0.10	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW023	06 May 2021	0902_SW023_210506	Normal	NSW_0902_PFASOMP		0.08	*1.66*	0.81	**2.47**	3.16	0.11	0.12	0.08	*<0.02*	*<0.1*	0.05	0.21	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW023	25 Nov 2021	0902_SW023_211125	Normal	NSW_0902_PFASOMP		0.01	*0.30*	0.13	0.43	0.51	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW023	25 Nov 2021	0902_QC108_211125	Field_D	NSW_0902_PFASOMP		0.01	*0.29*	0.12	0.41	0.48	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW023	31 May 2022	0902_SW023_220531	Normal	NSW_0902_PFASOMP		0.03	*0.46*	0.37	0.83	1.06	0.05	0.04	*<0.02*	*<0.02*	*<0.1*	0.03	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW023	07 Nov 2022	0902_SW023_221107	Normal	NSW_0902_PFASOMP		0.02	*0.29*	0.17	0.46	0.57	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW023	07 Nov 2022	0902_QC204_221107	Interlab_D	NSW_0902_PFASOMP		0.01	*0.22*	0.16	0.38	0.52	0.03	0.02	*<0.01*	*<0.02*	0.05	*<0.02*	0.03	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW023	10 May 2023	0902_SW023_230510	Normal	NSW_0902_PFASOMP_23		0.01	*0.17*	0.08	0.25	0.28	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW024	13 Nov 2017	0902_SW24_131117	Normal	NSW_0902_PFAS		*<0.01*	*0.04*	*<0.02*	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW024	19 Jan 2018	0902_SW024_190118	Normal	NSW_0902_PFAS		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW024	15 Nov 2019	0902_SW024_191115	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW024	14 May 2020	0902_SW024_200514	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW024	12 Nov 2020	0902_SW024_201112	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW024	05 May 2021	0902_SW024_210505	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW024	26 Nov 2021	0902_SW024_211126	Normal	NSW_0902_PFASOMP		*<0.01*	*0.01*	*<0.01*	0.01	0.01	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW024	31 May 2022	0902_SW024_220531	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW024	31 May 2022	0902_QC212_220531	Interlab_D	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW024	03 Nov 2022	0902_SW024_221103	Normal	NSW_0902_PFASOMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW024	09 May 2023	0902_SW024_230509	Normal	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW024	09 May 2023	0902_QC102_230509	Field_D	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW024	09 May 2023	0902_QC207_230509	Interlab_D	NSW_0902_PFASOMP_23		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*

Table T9 - Historical Surface Water Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																															
SW030	17 Nov 2013	0902_QC280_131117	Interlab_D	NSW_0902_PFAS		<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW030	13 Nov 2017	0902_SW30_131117	Normal	NSW_0902_PFAS		<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	18 Jan 2018	0902_SW030_180118	Normal	NSW_0902_PFAS		<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	27 Feb 2018	0902_SW030_270218	Normal	NSW_0902_PFAS		<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	15 Nov 2019	0902_SW030_191115	Normal	NSW_0902_PFASOMP		<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	15 May 2020	0902_SW030_200515	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	13 Nov 2020	0902_SW030_201113	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	07 May 2021	0902_SW030_210507	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	0.02	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	29 Nov 2021	0902_SW030_211129	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	31 May 2022	0902_SW030_220531	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	31 May 2022	0902_QC112_220531	Field_D	NSW_0902_PFASOMP		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	07 Nov 2022	0902_SW030_221107	Normal	NSW_0902_PFASOMP		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	10 May 2023	0902_SW030_230510	Normal	NSW_0902_PFASOMP_23		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	16 Nov 2017	0902_SW035_161117	Normal	NSW_0902_PFAS		<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	15 Jan 2018	0902_SW035_180115	Normal	NSW_0902_PFAS		<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	15 Nov 2019	0902_SW035_191115	Normal	NSW_0902_PFASOMP		<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	14 May 2020	0902_SW035_200514	Normal	NSW_0902_PFASOMP		<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	13 Nov 2020	0902_SW035_201113	Normal	NSW_0902_PFASOMP		<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	06 May 2021	0902_SW035_210506	Normal	NSW_0902_PFASOMP		<0.01	*0.05*	<0.02	0.05	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	25 Nov 2021	0902_SW035_211125	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	30 May 2022	0902_SW035_220530	Normal	NSW_0902_PFASOMP		<0.01	*0.03*	0.05	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	03 Nov 2022	0902_SW035_221103	Normal	NSW_0902_PFASOMP		<0.01	*0.04*	0.05	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW035	09 May 2023	0902_SW035_230509	Normal	NSW_0902_PFASOMP_23		<0.01	*0.04*	0.04	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW037	27 Nov 2017	0902_SW037_271117	Normal	NSW_0902_PFAS		0.01	*0.12*	0.06	0.18	0.24	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW037	15 Jan 2018	0902_SW037_180115	Normal	NSW_0902_PFAS		0.03	*0.76*	0.07	0.83	0.94	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW037	27 Feb 2018	0902_SW037_270218	Normal	NSW_0902_PFAS		0.02	*0.32*	0.04	0.36	0.43	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW037	11 Nov 2019	0902_SW037_191111	Normal	NSW_0902_PFASOMP		0.01	*0.19*	0.04	0.23	0.27	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW037	14 May 2020	0902_SW037_200514	Normal	NSW_0902_PFASOMP		0.02	*0.31*	0.16	0.47	0.67	0.03	0.02	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW037	13 Nov 2020	0902_SW037_201113	Normal	NSW_0902_PFASOMP		0.01	*0.15*	0.07	0.22	0.38	0.10	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW037	05 May 2021	0902_SW037_210505	Normal	NSW_0902_PFASOMP		<0.01	*0.19*	0.07	0.26	0.28	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW037	29 Nov 2021	0902_SW037_211129	Normal	NSW_0902_PFASOMP		0.01	*0.42*	0.13	0.55	0.67	0.04	<0.02	<0.02	<0.02	<0.1	0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW037	27 May 2022	0902_SW037_220527	Normal	NSW_0902_PFASOMP		0.02	*0.56*	0.27	0.83	1.02	0.03	0.02	<0.02	<0.02	<0.1	0.03	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW037	08 Nov 2022	0902_SW037_221108	Normal	NSW_0902_PFASOMP		<0.01	*0.18*	0.08	0.26	0.28	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW037	08 May 2023	0902_SW037_230508	Normal	NSW_0902_PFASOMP_23		0.03	*0.74*	0.17	0.91	1.01	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Table T10 - Historical Sediment Analytical Results

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids			
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																							
SD001	03 Jul 2017	0902_SD001_030717	Normal	NSW_0902_PFAS	0.0348	2.05	0.0175	2.07	10.0	0.0003	0.0005	0.0052	0.0329	0.002	0.0032	0.0139	0.0071	0.228	1.12	1.03	0.150	0.0121	0.0031	<0.0005	0.508	4.73	0.0390
SD001	03 Jul 2017	0902_QC108_030717	Field_D	NSW_0902_PFAS	0.634	38.9	0.671	39.6	151	<0.0100	0.0135	0.183	0.318	<0.010	0.0135	0.508	0.105	3.25	22.9	8.38	4.46	0.631	0.249	<0.0100	11.0	57.7	0.497
SD001	27 Feb 2018	0902_SD001_270218	Normal	NSW_0902_PFAS	0.252	5.01	0.0253	5.04	18.6	0.0006	0.0006	0.0221	0.0411	0.002	0.0056	0.0319	0.0413	1.16	2.76	2.06	0.825	0.105	0.0293	<0.0005	0.532	5.66	0.0065
SD001	04 Nov 2019	0902_SD001_191104	Normal	NSW_0902_PFASOMP	0.0565	14.6	0.0160	14.6	66.4	0.0051	<0.0050	0.0244	0.153	<0.005	0.0067	0.0219	0.0152	0.729	13.9	12.6	3.42	0.250	0.0506	<0.0050	0.124	19.9	0.351
SD001	04 Nov 2019	0902_QC101_191104	Field_D	NSW_0902_PFASOMP	0.0435	7.84	0.0124	7.85	42.2	<0.0050	<0.0050	0.0171	0.106	<0.005	<0.0050	0.0171	0.0109	0.464	8.87	8.01	2.59	0.177	0.0373	<0.0050	0.0995	13.5	0.284
SD001	15 May 2020	0902_SD001_200515	Normal	NSW_0902_PFASOMP	0.0938	6.56	0.0255	6.58	30.9	0.0015	0.0017	0.0175	0.250	0.002	0.0097	0.0289	0.0297	0.607	5.32	5.83	3.93	0.592	0.424	<0.0005	0.119	6.83	0.101
SD001	13 Nov 2020	0902_SD001_201113	Normal	NSW_0902_PFASOMP	0.0622	5.84	0.0149	5.85	21.5	0.0008	0.0008	0.0153	0.0903	0.003	0.0056	0.0133	0.0136	0.732	3.14	2.72	1.90	0.292	0.167	<0.0005	0.0683	6.32	0.0541
SD001	13 Nov 2020	0902_QC107_201113	Field_D	NSW_0902_PFASOMP	0.0310	2.70	0.0081	2.71	10.1	0.0005	0.0005	0.0074	0.0393	0.002	0.0031	0.0071	0.0085	0.363	1.46	1.34	0.876	0.140	0.0659	<0.0005	0.0358	2.97	0.0354
SD001	07 May 2021	0902_SD001_210507	Normal	NSW_0902_PFASOMP	0.0124	1.98	0.0135	1.99	7.45	0.0012	0.0006	0.0086	0.0576	<0.002	0.0035	0.0068	0.0051	0.112	1.10	1.22	0.770	0.159	0.0488	<0.0005	0.0158	1.81	0.0914
SD001	07 May 2021	0902_QC107_210507	Field_D	NSW_0902_PFASOMP	0.0493	2.78	0.0498	2.83	23.4	0.0031	0.0031	0.0422	0.318	<0.005	0.0067	0.0146	0.0146	0.494	3.81	5.53	3.95	0.417	0.117	<0.0010	0.0458	5.22	0.323
SD001	26 Nov 2021	0902_SD001_211126	Normal	NSW_0902_PFASOMP	0.104	14.3	0.0885	14.4	51.1	0.0054	0.0075	0.0282	0.322	<0.001	0.0105	0.0366	0.0339	0.708	6.81	10.7	8.99	1.52	1.01	<0.0005	0.132	5.35	0.718
SD001	26 Nov 2021	0902_QC209_211126	Interlab_D	NSW_0902_PFASOMP	0.11	11	0.093	11	52	0.0052	0.0068	0.028	0.28	0.0042	0.011	0.029	0.037	0.66	5.6	8.8	11	2.5	1.2	<0.0001	0.12	8.5	1.1
SD001	24 May 2022	0902_SD001_220524	Normal	NSW_0902_PFASOMP	0.0315	4.24	0.0610	4.30	13.9	0.0037	0.0050	0.0096	0.218	0.002	0.0061	0.0120	0.0098	0.0817	0.490	2.94	3.72	0.477	0.207	<0.0005	0.0220	1.03	0.244
SD001	24 May 2022	0902_QC101_220524	Field_D	NSW_0902_PFASOMP	0.0634	6.59	0.0980	6.69	19.3	0.0076	0.0090	0.0236	0.349	0.004	0.0105	0.0263	0.0220	0.127	0.891	3.50	4.41	0.622	0.389	<0.0005	0.0539	1.83	0.0688
SD001	07 Nov 2022	0902_SD001_221107	Normal	NSW_0902_PFASOMP	0.0926	8.20	0.218	8.42	28.9	0.0051	0.0112	0.0367	0.318	<0.005	0.0054	0.0222	0.0291	0.423	2.21	5.53	5.36	1.23	1.02	<0.0010	0.0925	3.52	0.493
SD001	07 Nov 2022	0902_QC106_221107	Field_D	NSW_0902_PFASOMP	0.101	8.53	0.204	8.73	29.7	0.0053	0.0109	0.0347	0.320	<0.005	0.0055	0.0224	0.0275	0.386	2.27	5.58	5.46	1.13	1.03	<0.0010	0.0926	3.82	0.511
SD001	07 Nov 2022	0902_QC206_221107	Interlab_D	NSW_0902_PFASOMP	0.051	6.5	0.069	6.6	26	0.0038	0.0053	0.019	0.32	0.002	0.0051	0.014	0.014	0.33	2.6	4.6	5.1	1.2	0.98	<0.0005	0.046	3.6	0.35
SD001	08 May 2023	0902_SD001_230508	Normal	NSW_0902_PFASOMP_23	0.0037	0.599	0.0032	0.602	1.47	0.0004	0.0003	0.0025	0.0214	<0.001	0.0016	0.0020	0.0015	0.0230	0.137	0.199	0.193	0.0419	0.0285	<0.0005	0.0039	0.174	0.0254
SD001	08 May 2023	0902_QC101_230508	Field_D	NSW_0902_PFASOMP_23	0.103	13.9	0.0995	14.0	42.3	0.0043	0.0068	0.0517	0.477	<0.012	0.0122	0.0257	0.0324	0.597	3.85	8.25	6.90	1.50	0.679	<0.0025	0.114	4.99	0.562
SD001	08 May 2023	0902_QC201_230508	Interlab_D	NSW_0902_PFASOMP_23	0.017	1.7	0.017	1.8	5.6	0.0011	0.0013	0.0057	0.071	0.0020	0.0036	0.0058	0.0054	0.063	0.46	0.85	1.1	0.25	0.19	<0.0001	0.027	0.71	0.056
SD002	04 Jul 2017	0902_SD002_040717	Normal	NSW_0902_PFAS	0.0298	1.68	0.237	1.92	2.21	0.0023	0.0032	0.0157	0.0177	0.002	0.0059	0.0097	0.0076	0.0133	0.0026	0.0060	0.0114	0.0017	0.0032	<0.0005	0.0742	0.0424	0.0023
SD002	15 Jan 2018	0902_SD002_180115	Normal	NSW_0902_PFAS	0.0039	0.461	0.0160	0.477	0.573	0.0014	0.0018	0.0034	0.0051	<0.001	0.0016	0.0030	0.0019	0.0050	0.0063	0.0059	0.0057	0.0018	0.0037	<0.0005	0.0179	0.0112	0.0008
SD002	04 Nov 2019	0902_SD002_191104	Normal	NSW_0902_PFASOMP	0.0069	0.404	0.0394	0.443	0.604	0.0028	0.0029	0.0036	0.0179	0.003	0.0088	0.0062	0.0028	0.0072	0.0150	0.0134	0.0143	0.0054	0.0049	<0.0005	0.0031	0.0051	0.0108
SD002	14 May 2020	0902_SD002_200514	Normal	NSW_0902_PFASOMP	0.0059	0.311	0.0446	0.356	0.469	0.0047	0.0045	0.0047	0.0034	0.004	0.0054	0.0106	0.0026	0.0054	0.0117	0.0115	0.0126	0.0024	<0.0025	<0.0010	<0.0010	0.0048	0.0020
SD002	13 Nov 2020	0902_SD002_201113	Normal	NSW_0902_PFASOMP	0.0046	0.345	0.0286	0.374	0.462	0.0031	0.0024	0.0036	0.0031	<0.001	0.0022	0.0080	<0.0002	0.0042	0.0189	0.0105	0.0075	0.0020	<0.0005	<0.0005	0.0018	0.0030	<0.0005
SD002	13 Nov 2020	0902_QC207_201113	Interlab_D	NSW_0902_PFASOMP	0.0045	0.51	0.035	-	-	0.0027	0.0026	0.0037	0.0048	<0.002	0.0041	0.0058	0.0021	0.0045	0.022	0.016	0.017	0.0043	0.004	<0.001	0.0016	0.0042	<0.002
SD002	05 May 2021	0902_SD002_210505	Normal	NSW_0902_PFASOMP	0.0107	0.599	0.0599	0.659	0.853	0.0036	0.0051	0.0083	0.0122	<0.005	0.0059	0.0074	0.0033	0.0107	0.0198	0.0282	0.0344	0.0092	0.0056	<0.0010	0.0021	0.0048	0.0043
SD002	29 Nov 2021	0902_SD002_211129	Normal	NSW_0902_PFASOMP	0.0028	0.593	0.0379	0.631	0.743	0.0028	0.0028	0.0060	0.0121	<0.001	0.0016	0.0052	0.0009	0.0034	0.0117	0.0116	0.0147	0.0048	0.0045	<0.0005	0.0007	0.0026	0.0006
SD002	27 May 2022	0902_SD002_220527	Normal	NSW_0902_PFASOMP	0.0115	1.49	0.157	1.65	1.87	0.0124	0.0153	0.0261	0.0138	0.003	0.0054	0.0214	0.0044	0.0027	0.0067	0.0152	0.0263	0.0084	0.0072	<0.0005	0.0011	0.0098	0.0022
SD002	27 May 2022	0902_QC207_220527	Interlab_D	NSW_0902_PFASOMP	0.01	1.4	0.11	1.5	1.8	0.011	0.013	0.025	0.019	0.0028	0.0046	0.018	0.0036	0.0024	0.0053	0.012	0.031	0.014	0.009	<0.0001	0.0013	0.0058	0.0044
SD002	08 Nov 2022	0902_SD002_221108	Normal	NSW_0902_PFASOMP	0.0053	1.09	0.0864	1.18	1.30	0.0048	0.0055	0.0151	0.0136	<0.005	0.0022	0.0072	0.0016	0.0014	0.0030	0.0050	0.0140	0.0058	0.0059	<0.0010	<0.0010	0.0019	<0.0010
SD002	08 May 2023	0902_SD002_230508	Normal	NSW_0902_PFASOMP_23	0.0006	0.186	0.0046	0.191	0.242	0.0005	0.0005	0.0018	0.0059	<0.001	0.0004	0.0006	<0.0002	0.0004	0.0015	0.0022	0.0055	0.0022	0.0019	<0.0005	<0.0005	0.0018	0.0011
SD003	04 Jul 2017	0902_SD003_040717	Normal	NSW_0902_PFAS	0.0082	0.936	0.0947	1.03	1.16	0.0022	0.0027	0.0054	0.0212	0.001	0.0029	0.0077	0.0031	0.0073	0.0148	0.0110	0.0039	0.0011	0.0006	<0.0005	0.0084	0.0125	0.0005
SD003	15 Jan 2018	0902_SD003_180115	Normal	NSW_0902_PFAS	0.0260	1.98	0.0968	2.08	3.30	0.0060	0.0058	0.0187	0.0214	<0.001	0.0192	0.0192	0.0120	0.0299	0.0388	0.0193	0.0245	0.0099	0.0349	<0.0005	0.779	0.0778	0.0067
SD003	15 Jan 2018	0902_QC211_180115	Interlab_D	NSW_0902_PFAS	0.022	3.7	0.086	-	-	0.0052	0.0063	0.039	0.083	0.0036	0.01	0.018	0.0095	0.03	0.042	0.032	0.058	0.013	<0.05	<0.001	0.055	0.052	0.01
SD003	27 Feb 2018	0902_SD003_270218	Normal	NSW_0902_PFAS	0.0069	0.289	0.0200	0.309	0.376	0.0016	0.0014	0.0023	0.0068	<0.001	0.0027	0.0055	0.0028	0.0060	0.0087	0.0047	0.0050	0.0004	<0.0005	<0.0005	0.0043	0.0027	<0.0005
SD003	27 Feb 2018	0902_QC121_270218	Field_D	NSW_0902_PFAS	0.0071	0.297	0.0215	0.318	0.391	0.0019	0.0016	0.0030	0.0081	<0.001	0.0026	0.0058	0.0028	0.0048	0.0088	0.0050	0.0058	0.0006	<0.0005	<0.0005	0.0037	0.0045	<0.0005
SD003	11 Nov 2019	0902_SD003_191111	Normal	NSW_0902_PFASOMP	0.0114	2.66	0.149	2.81	3.12	0.0132	0.0136	0.0158	0.0359	0.003	0.0047	0.0245	0.0032	0.0217	0.0411	0.0136	0.0209	0.0043	0.0039	<0.0005	0.0066	0.0370	0.0063
SD003	14 May 2020	0902_SD003_200514	Normal	NSW_0902_PFASOMP	0.0113	1.46	0.0683	1.53	2.03	0.0061	0.0057	0.0117	0.0550	0.009	0.0032	0.0133	0.0036	0.0113	0.0441	0.0514	0.0784	0.0194	0.0113	<0.0025	0.0194	0.0639	0.0150
SD003	13 Nov 2020	0902_SD003_201113	Normal	NSW_0902_PFASOMP	0.0047	0.497	0.0350	0.532	0.629	0.0022	0.0025	0.0044	0.0138	0.001	0.0020	0.0055	0.0018	0.0038	0.0121	0.0115	0.0084	0.0021	0.0005	<0.0005	0.0008	0.0019	<0.0005
SD003	05 May 2021	0902_SD003_210505	Normal	NSW_0902_PFASOMP	0.0105	0.630	0.0771	0.707	0.888	0.0041	0.0066	0.0092	0.0288	0.003	0.0077	0.0109	0.0039	0.0096	0.0198	0.0211	0.0230	0.0049	0.0025	<0.0005	0.0010	0.0010	<0.0005
SD003	29 Nov 2021	0902_SD003_211129	Normal	NSW_0902_PFASOMP	0.0094	1.29	0.106	1.40	1.66	0.0067	0.0073	0.0092	0.0534	0.003	0.0076	0.0136	0.0039	0.0076	0.0247	0.0344	0.0490	0.0110	<0.0005	<0.0005	0.0013	0.0030	0.0009
SD003	29 Nov 2021	0902_QC210_211129	Interlab_D	NSW_0902_PFASOMP	0.0054	1.1	0.07	1.1	1.4	0.0038	0.0046	0.011	0.015	0.002	0.0031	0.0073	0.0022	0.0068	0.025	0.029	0.051	0.03	0.005	<0.0001	0.0014	0.01	0.002
SD003	27 May 2022	0902_SD003_220527	Normal	NSW_0902_PFASOMP	0.0055	1.18	0.0818	1.26	1.36	0.0064	0.0073	0.0149	0.0092	0.001	0.0022	0.0103	0.0022	0.0013	0.0034	0.0068	0.0120	0.0035	0.0025	<0.0005	0.0007	0.0046	0.0013
SD003	08 Nov 2022	0902_SD003_221108	Normal	NSW_0902_PFASOMP	0.0050	0.783	0.0680	0.851	0.931	0.0046	0.0053	0.0097	0.0070	<0.005	0.0019	0.0081	0.0018	<0.0010	0.0023	0.0062	0.0103	0.0035	0.0028	<0.0010	<0.0010	0.0026	<0.0010
SD003	08 May 2023	0902_SD003_230508	Normal	NSW_0902_PFASOMP_23	0.0016	0.628	0.0204	0.648	0.719	0.0019	0.0022	0.0067	0.0069	0.001	0.0011	0.0027	<0.0002	0.0012	0.0033	0.0062	0.0171	0.0028	0.0018	<0.0005	0.0007	0.0048	0.0014
SD005	04 Jul 2017	0902_SD005_040717	Normal	NSW_0902_PFAS	<0.0002	0.0068	0.0004	0.0072	0.0072	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	08 Nov 2019	0902_SD005_191108	Normal	NSW_0902_PFASOMP	<0.0002	0.0044	<0.0002	0.0044	0.0044	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	14 May 2020	0902_SD005_200514	Normal	NSW_0902_PFASOMP	<0.0002	0.0112	0.0007	0.0119	0.0119	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	14 May 2020	0902_QC105_200514	Field_D	NSW_0902_PFASOMP	<0.0002	0.0148	0.0007	0.0155	0.0155	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	12 Nov 2020	0902_SD005_201112	Normal	NSW_0902_PFASOMP	<0.0002	0.0083	0.0005	0.0088	0.0088	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	12 Nov 2020	0902_QC105_201112	Field_D	NSW_0902_PFASOMP	<0.0002	0.0093	0.0008	0.0101	0.0101	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	06 May 2021	0902_SD005_210506	Normal	NSW_0902_PFASOMP	<0.0002	0.0116	0.0012	0.0128	0.0130	0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	25 Nov 2021	0902_SD005_211125	Normal	NSW_0902_PFASOMP	<0.0002	0.0167	0.0012	0.0179	0.0183	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	26 May 2022	0902_SD005_220526	Normal	NSW_0902_PFASOMP	<0.0002	0.0073	0.0002	0.0075	0.0075	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	11 Nov 2022	0902_SD005_221111	Normal	NSW_0902_PFASOMP	<0.0002	0.0108	0.0003	0.0111	0.0111	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

					PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**							
SD001	03 Jul 2017	0902_SD001_030717	Normal	NSW_0902_PFAS	0.0104	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD001	03 Jul 2017	0902_QC108_030717	Field_D	NSW_0902_PFAS	0.527	*<0.0250*	*<0.0100*	*<0.0250*	*<0.0250*	*<0.0100*	*<0.0250*
SD001	27 Feb 2018	0902_SD001_270218	Normal	NSW_0902_PFAS	0.0557	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD001	04 Nov 2019	0902_SD001_191104	Normal	NSW_0902_PFASOMP	0.185	*<0.0125*	*<0.0050*	*<0.0125*	*<0.0125*	*<0.0050*	*<0.0125*
SD001	04 Nov 2019	0902_QC101_191104	Field_D	NSW_0902_PFASOMP	0.142	*<0.0125*	*<0.0050*	*<0.0125*	*<0.0125*	*<0.0050*	*<0.0125*
SD001	15 May 2020	0902_SD001_200515	Normal	NSW_0902_PFASOMP	0.155	*<0.0012*	*<0.0005*	*<0.0012*	*<0.0012*	*<0.0005*	0.0067
SD001	13 Nov 2020	0902_SD001_201113	Normal	NSW_0902_PFASOMP	0.0694	*<0.0005*	0.0009	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD001	13 Nov 2020	0902_QC107_201113	Field_D	NSW_0902_PFASOMP	0.0408	*<0.0005*	0.0003	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD001	07 May 2021	0902_SD001_210507	Normal	NSW_0902_PFASOMP	0.0251	*<0.0012*	*<0.0005*	*<0.0012*	*<0.0012*	*<0.0005*	0.0127
SD001	07 May 2021	0902_QC107_210507	Field_D	NSW_0902_PFASOMP	0.121	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	0.0899
SD001	26 Nov 2021	0902_SD001_211126	Normal	NSW_0902_PFASOMP	0.183	*<0.0005*	0.0024	*<0.0005*	*<0.0005*	0.0020	*<0.0005*
SD001	26 Nov 2021	0902_QC209_211126	Interlab_D	NSW_0902_PFASOMP	0.37	0.002	0.0027	*<0.001*	*<0.001*	0.0024	*<0.005*
SD001	24 May 2022	0902_SD001_220524	Normal	NSW_0902_PFASOMP	0.0693	*<0.0005*	0.0014	*<0.0005*	*<0.0005*	*<0.0002*	0.0524
SD001	24 May 2022	0902_QC101_220524	Field_D	NSW_0902_PFASOMP	0.0903	*<0.0005*	0.0018	*<0.0005*	*<0.0005*	*<0.0002*	0.0785
SD001	07 Nov 2022	0902_SD001_221107	Normal	NSW_0902_PFASOMP	0.128	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*
SD001	07 Nov 2022	0902_QC106_221107	Field_D	NSW_0902_PFASOMP	0.128	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*
SD001	07 Nov 2022	0902_QC206_221107	Interlab_D	NSW_0902_PFASOMP	0.093	*<0.005*	*<0.001*	*<0.005*	*<0.005*	*<0.001*	*<0.02*
SD001	08 May 2023	0902_SD001_230508	Normal	NSW_0902_PFASOMP_23	0.0065	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD001	08 May 2023	0902_QC101_230508	Field_D	NSW_0902_PFASOMP_23	0.149	*<0.0062*	*<0.0025*	*<0.0062*	*<0.0062*	*<0.0025*	*<0.0062*
SD001	08 May 2023	0902_QC201_230508	Interlab_D	NSW_0902_PFASOMP_23	0.017	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*
SD002	04 Jul 2017	0902_SD002_040717	Normal	NSW_0902_PFAS	0.0378	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0002	*<0.0005*
SD002	15 Jan 2018	0902_SD002_180115	Normal	NSW_0902_PFAS	0.0153	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD002	04 Nov 2019	0902_SD002_191104	Normal	NSW_0902_PFASOMP	0.0262	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD002	14 May 2020	0902_SD002_200514	Normal	NSW_0902_PFASOMP	0.0173	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*
SD002	13 Nov 2020	0902_SD002_201113	Normal	NSW_0902_PFASOMP	0.0131	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD002	13 Nov 2020	0902_QC207_201113	Interlab_D	NSW_0902_PFASOMP	0.015	*<0.002*	*<0.002*	*<0.005*	*<0.002*	*<0.002*	*<0.005*
SD002	05 May 2021	0902_SD002_210505	Normal	NSW_0902_PFASOMP	0.0186	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*
SD002	29 Nov 2021	0902_SD002_211129	Normal	NSW_0902_PFASOMP	0.0231	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0003	*<0.0005*
SD002	27 May 2022	0902_SD002_220527	Normal	NSW_0902_PFASOMP	0.0349	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD002	27 May 2022	0902_QC207_220527	Interlab_D	NSW_0902_PFASOMP	0.044	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*
SD002	08 Nov 2022	0902_SD002_221108	Normal	NSW_0902_PFASOMP	0.0318	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*
SD002	08 May 2023	0902_SD002_230508	Normal	NSW_0902_PFASOMP_23	0.0240	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	04 Jul 2017	0902_SD003_040717	Normal	NSW_0902_PFAS	0.0174	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	15 Jan 2018	0902_SD003_180115	Normal	NSW_0902_PFAS	0.0730	*<0.0006*	0.0006	*<0.0006*	*<0.0006*	0.0009	*<0.0006*
SD003	15 Jan 2018	0902_QC211_180115	Interlab_D	NSW_0902_PFAS	0.034	*<0.01*	*<0.002*	*<0.01*	*<0.01*	*<0.002*	*<0.05*
SD003	27 Feb 2018	0902_SD003_270218	Normal	NSW_0902_PFAS	0.0055	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	27 Feb 2018	0902_QC121_270218	Field_D	NSW_0902_PFAS	0.0067	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	11 Nov 2019	0902_SD003_191111	Normal	NSW_0902_PFASOMP	0.0337	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0007	*<0.0005*
SD003	14 May 2020	0902_SD003_200514	Normal	NSW_0902_PFASOMP	0.0647	*<0.0062*	*<0.0025*	*<0.0062*	*<0.0062*	*<0.0025*	*<0.0062*
SD003	13 Nov 2020	0902_SD003_201113	Normal	NSW_0902_PFASOMP	0.0177	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0002	*<0.0005*
SD003	05 May 2021	0902_SD003_210505	Normal	NSW_0902_PFASOMP	0.0128	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	29 Nov 2021	0902_SD003_211129	Normal	NSW_0902_PFASOMP	0.0232	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0003	*<0.0005*
SD003	29 Nov 2021	0902_QC210_211129	Interlab_D	NSW_0902_PFASOMP	0.024	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	0.0002	*<0.005*
SD003	27 May 2022	0902_SD003_220527	Normal	NSW_0902_PFASOMP	0.0066	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	08 Nov 2022	0902_SD003_221108	Normal	NSW_0902_PFASOMP	0.0085	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*
SD003	08 May 2023	0902_SD003_230508	Normal	NSW_0902_PFASOMP_23	0.0071	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	04 Jul 2017	0902_SD005_040717	Normal	NSW_0902_PFAS	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	08 Nov 2019	0902_SD005_191108	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	14 May 2020	0902_SD005_200514	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	14 May 2020	0902_QC105_200514	Field_D	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	12 Nov 2020	0902_SD005_201112	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	12 Nov 2020	0902_QC105_201112	Field_D	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	06 May 2021	0902_SD005_210506	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	25 Nov 2021	0902_SD005_211125	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	26 May 2022	0902_SD005_220526	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	11 Nov 2022	0902_SD005_221111	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*

Table T10 - Historical Sediment Analytical Results

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids			
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																							
SD005	11 May 2023	0902_SD005_230511	Normal	NSW_0902_PFASOMP_23	*<0.0002*	0.0040	0.0002	0.0042	0.0042	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD007	04 Jul 2017	0902_SD007_040717	Normal	NSW_0902_PFAS	0.0003	0.0146	0.0015	0.0161	0.0187	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	0.0003	0.0003	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	0.0017	*<0.0005*	*<0.0005*
SD007	15 Jan 2018	0902_SD007_180115	Normal	NSW_0902_PFAS	*<0.0002*	0.0103	0.0009	0.0112	0.0123	*<0.0002*	*<0.0002*	0.0009	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	0.0002	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD007	08 Nov 2019	0902_SD007_191108	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0044	0.0007	0.0051	0.0051	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD007	14 May 2020	0902_SD007_200514	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0033	0.0002	0.0035	0.0035	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD007	14 May 2020	0902_QC207_200514	Interlab_D	NSW_0902_PFASOMP	*<0.001*	0.0057	*<0.001*	-	-	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.002*	*<0.002*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.002*	*<0.002*	*<0.002*	*<0.002*	*<0.001*	*<0.001*	*<0.001*	*<0.002*
SD007	12 Nov 2020	0902_SD007_201112	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0035	0.0005	0.0040	0.0042	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	0.0002	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD007	12 Nov 2020	0902_QC205_201112	Interlab_D	NSW_0902_PFASOMP	*<0.001*	0.0041	*<0.001*	-	-	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.002*	*<0.002*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.002*	*<0.002*	*<0.002*	*<0.002*	*<0.001*	*<0.001*	*<0.001*	*<0.002*
SD007	06 May 2021	0902_SD007_210506	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0012	0.0002	0.0014	0.0019	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	0.0005	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD007	29 Nov 2021	0902_SD007_211129	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0121	0.0008	0.0129	0.0129	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD007	29 Nov 2021	0902_QC111_211129	Field_D	NSW_0902_PFASOMP	*<0.0002*	0.0100	0.0012	0.0112	0.0115	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	0.0003	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD007	26 May 2022	0902_SD007_220526	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0018	*<0.0002*	0.0018	0.0018	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD007	11 Nov 2022	0902_SD007_221111	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0045	0.0004	0.0049	0.0049	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD007	11 May 2023	0902_SD007_230511	Normal	NSW_0902_PFASOMP_23	*<0.0002*	0.0010	*<0.0002*	0.0010	0.0010	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD008	03 Jul 2017	0902_SD008_030717	Normal	NSW_0902_PFAS	*<0.0002*	0.0385	0.0019	0.0404	0.0430	*<0.0002*	*<0.0002*	0.0003	0.0008	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	0.0002	0.0003	0.0002	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	0.0008	*<0.0005*	*<0.0005*
SD008	27 Feb 2018	0902_SD008_270218	Normal	NSW_0902_PFAS	0.0004	0.0367	0.0043	0.0410	0.0452	0.0003	0.0003	0.0003	0.0008	*<0.001*	*<0.0002*	0.0006	0.0005	0.0002	0.0002	0.0004	0.0002	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD008	08 Nov 2019	0902_SD008_191108	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0068	0.0006	0.0074	0.0086	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD008	14 May 2020	0902_SD008_200514	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0109	0.0018	0.0127	0.0133	0.0002	0.0004	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD008	14 May 2020	0902_QC108_200514	Field_D	NSW_0902_PFASOMP	*<0.0002*	0.0161	0.0032	0.0193	0.0201	0.0003	0.0003	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	0.0002	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD008	12 Nov 2020	0902_SD008_201112	Normal	NSW_0902_PFASOMP	0.0002	0.0172	0.0019	0.0191	0.0204	0.0006	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	0.0005	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD008	06 May 2021	0902_SD008_210506	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0043	0.0020	0.0063	0.0069	0.0004	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	0.0002	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD008	29 Nov 2021	0902_SD008_211129	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0056	0.0011	0.0067	0.0086	*<0.0002*	*<0.0002*	0.0010	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	0.0009	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD008	29 Nov 2021	0902_QC114_211129	Field_D	NSW_0902_PFASOMP	*<0.0002*	0.0036	0.0010	0.0046	0.0046	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD008	26 May 2022	0902_SD008_220526	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0072	0.0010	0.0082	0.0084	*<0.0002*	*<0.0002*	*<0.0002*	0.0002	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD008	11 Nov 2022	0902_SD008_221111	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0209	0.0024	0.0233	0.0236	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	0.0003	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD008	11 May 2023	0902_SD008_230511	Normal	NSW_0902_PFASOMP_23	*<0.0002*	0.0406	0.0007	0.0413	0.0465	*<0.0002*	*<0.0002*	0.0002	0.0032	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	0.0005	0.0008	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD009	03 Jul 2017	0902_SD009_030717	Normal	NSW_0902_PFAS	0.0016	0.183	0.0067	0.190	0.201	*<0.0002*	*<0.0002*	0.0010	0.0029	*<0.001*	0.0005	0.0006	0.0004	0.0008	0.0007	0.0007	0.0006	0.0002	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD009	15 Jan 2018	0902_SD009_180115	Normal	NSW_0902_PFAS	0.0008	0.263	0.0086	0.272	0.287	*<0.0002*	*<0.0002*	0.0011	0.0064	*<0.001*	*<0.0002*	0.0003	0.0002	0.0003	0.0006	0.0004	0.0005	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD009	05 Feb 2018	0902_SD09_050218	Normal	NSW_0902_PFAS	0.0004	0.191	0.0024	0.193	0.206	*<0.0002*	*<0.0002*	0.0007	0.0094	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	0.0002	0.0004	0.0005	0.0004	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD009	27 Feb 2018	0902_SD009_270218	Normal	NSW_0902_PFAS	0.0016	0.0917	0.0071	0.0988	0.113	0.0003	0.0004	0.0008	0.0027	0.002	*<0.0002*	0.0006	0.0004	0.0003	0.0006	0.0007	0.0007	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	0.0014	0.0007	*<0.0005*
SD009	04 Nov 2019	0902_SD009_191104	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0178	0.0009	0.0187	0.0223	*<0.0002*	*<0.0002*	*<0.0002*	0.0008	*<0.001*	*<0.0002*	0.0003	*<0.0002*	*<0.0002*	*<0.0002*	0.0002	0.0003	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD009	14 May 2020	0902_SD009_200514	Normal	NSW_0902_PFASOMP	0.0024	0.147	0.0227	0.170	0.227	0.0016	0.0041	0.0017	0.0041	0.002	0.0044	0.0032	0.0020	0.0008	0.0006	0.0017	0.0106	0.0054	0.0043	*<0.0005*	0.0018	0.0016	0.0009
SD009	12 Nov 2020	0902_SD009_201112	Normal	NSW_0902_PFASOMP	0.0007	0.0822	0.0086	0.0908	0.116	0.0007	0.0007	0.0006	0.0016	0.001	0.0011	0.0019	0.0004	*<0.0002*	0.0003	0.0008	0.0053	0.0030	0.0028	*<0.0005*	0.0010	0.0012	0.0006
SD009	06 May 2021	0902_SD009_210506	Normal	NSW_0902_PFASOMP	0.0005	0.0712	0.0037	0.0749	0.0878	*<0.0002*	*<0.0002*	0.0007	0.0066	*<0.001*	0.0004	0.0004	0.0003	0.0005	0.0009	0.0012	0.0010	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD009	29 Nov 2021	0902_SD009_211129	Normal	NSW_0902_PFASOMP	0.0003	0.0493	0.0032	0.0525	0.0561	0.0003	0.0003	0.0003	0.0010	*<0.001*	*<0.0002*	0.0006	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	0.0005	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD009	29 Nov 2021	0902_QC215_211129	Interlab_D	NSW_0902_PFASOMP	0.0003	0.047	0.0031	0.05	0.057	0.0002	0.0002	0.0005	0.0006	*<0.0002*	0.0004	0.0004	0.0002	0.0002	*<0.0005*	0.0006	0.001	0.001	*<0.005*	*<0.0001*	0.0001	0.0004	0.0003
SD009	26 May 2022	0902_SD009_220526	Normal	NSW_0902_PFASOMP	0.0005	0.0541	0.0079	0.0620	0.0665	*<0.0002*	0.0003	0.0007	0.0010	*<0.001*	*<0.0002*	0.0004	*<0.0002*	0.0005	0.0003	0.0003	0.0003	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD009	18 Nov 2022	0902_SD009_221118	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0161	0.0018	0.0179	0.0194	*<0.0002*	*<0.0002*	*<0.0002*	0.0008	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	0.0002	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD009	11 May 2023	0902_SD009_230511	Normal	NSW_0902_PFASOMP_23	0.0002	0.0182	0.0013	0.0195	0.0227	*<0.0002*	*<0.0002*	0.0004	0.0008	*<0.001*	*<0.0002*	0.0004	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	0.0007	0.0004	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD011	04 Jul 2017	0902_SD011_040717	Normal	NSW_0902_PFAS	0.0066	0.722	0.0479	0.770	0.911	0.0003	0.0005	0.0068	0.0060	*<0.001*	*<0.0002*	0.0057	0.0014	0.0042	0.0041	0.0085	0.0152	0.0078	0.0063	*<0.0005*	0.0040	0.0463	0.0065
SD011	04 Jul 2017	0902_QC206_040717	Interlab_D	NSW_0902_PFAS	0.0026	0.38	0.017	-	-	0.0009	0.0013	0.0022	0.0024	0.001	*<0.0002*	0.0024	*<0.0001*	0.0011	0.002	0.004	0.011	0.0084	0.009	*<0.0001*	0.0005	0.0078	0.0024
SD011	15 Jan 2018	0902_SD011_180115	Normal	NSW_0902_PFAS	0.0014	0.178	0.0085	0.186	0.226	*<0.0002*	0.0006	0.0021	0.0022	*<0.001*	*<0.0002*	0.0012	0.0006	0.0005	0.0010	0.0016	0.0028	0.0029	0.0076	*<0.0005*	0.0028	0.0047	0.0007
SD011	27 Feb 2018	0902_SD011_270218	Normal	NSW_0902_PFAS	0.0003	0.0090	0.0012	0.0102	0.0146	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	0.0007	0.0002	*<0.0002*	*<0.0002*	*<0.0002*	0.0002	*<0.0002*	*<0.0005*	*<0.0005*	0.0030	*<0.0005*	*<0.0005*
SD011	27 Feb 2018	0902_QC221_270218	Interlab_D	NSW_0902_PFAS	0.0005	0.035	0.0060	-	-	0.0005	0.0005	0.0006	0.0005	0.0006	0.0007	0.0011	0.0002	0.0003	*<0.0005*	*<0.0005*	0.0007	*<0.0005*	*<0.005*	*<0.0001*	0.0002	0.0003	0.0001
SD011	08 Nov 2019	0902_SD011_191108	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0027	*<0.0002*	0.0027	0.0027	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD011	15 May 2020	0902_SD011_200515	Normal	NSW_0902_PFASOMP	*<0.0005*	0.0217	0.0027	0.0244	0.0271	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.001*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	0.0009	0.0018	*<0.0005*	*<0.0012*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD011	12 Nov 2020	0902_SD011_201112	Normal	NSW_0902_PFASOMP	0.0005	0.0664	0.0045	0.0709	0.0815	*<0.0002*	0.0002	0.0004	0.0006	*<0.001*	0.0006	0.0011	0.0003	0.0003	0.0006	0.0011	0.0028	0.0007	0.0006	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD011	07 May 2021	0902_SD011_210507	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0311	0.0021	0.0332	0.0352	*<0.0002*	*<0.0002*	*<0.0002*	0.0012	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	0.0002	0.0003	0.0003	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD011	29 Nov 2021	0902_SD011_211129	Normal	NSW_0902_PFASOMP	0.0006	0.117	0.0050	0.122	0.138	0.0003	0.0003	0.0006	0.0027	*<0.001*	0.0004	0.0013	0.0004	0.0008	0.0014	0.0019	0.0025	0.0008	0.0008	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD011	27 May 2022	0902_SD011_220527	Normal	NSW_0902_PFASOMP	0.0004	0.0407	0.0059	0.0466	0.0527	0.0008	0.0008	0.0005	0.0007	*<0.001*	0.0003	0.0011	0.0002	*<0.0002*	*<0.0002*	0.0003	0.0006	0.0002	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD011	11 Nov 2022	0902_SD011_221111	Normal	NSW_0902_PFASOMP	0.0004	0.0871	0.0075	0.0946	0.105	0.0003	0.0004	0.0006	0.0021	*<0.001*	*<0.0002*	0.0008	*<0.0002*	*<0.0002*	*<0.0002*	0.0006	0.0028	0.0010	0.0008	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD011	11 May 2023	0902_SD011_230511	Normal	NSW_0902_PFASOMP_23	*<0.0002*	0.0360	0.0019	0.0379	0.0392	*<0.0002*	*<0.0002*	0.0003	0.0007	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD013	03 Jul 2017	0902_SD013_030717	Normal	NSW_0902_PFAS	0.0006	0.0416	0.0064	0.0480	0.0506	*<0.0002*	0.0002	0.0003	0.0005	*<0.001*	*<0.0002*	0.0005	0.0003	0.0002	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD013	08 Nov 2019	0902_SD013_191108	Normal	NSW_0902_PFASOMP	*<0.0002*	0.0135	0.0018	0.0153	0.0184	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.001*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	0.0004	0.0008	0.0014	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD013	14 May 2020	0902_SD013_200514	Normal	NSW_0902_PFASOMP	0.0002	0.0382	0.0029	0.0411	0.0428	0.0002	0.0004	0.0002	0.0004	*<0.001*	*<0.0002*	0.0003	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*	*<0.0005*
SD013	14 May 2020	0902_QC209_200514	Interlab_D	NSW_0902_PFASOMP	*<0.001*	0.054	0.0035	-	-	*<0.001*	*<0.001*	*<0.001*	*<0.001*	0.029	*<0.002*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.002*	*<0.002*	*<0.002*	*<0.002*	*<0.001*	*<0.001*	*<0.001*	*<0.002*

					PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**							
SD005	11 May 2023	0902_SD005_230511	Normal	NSW_0902_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD007	04 Jul 2017	0902_SD007_040717	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD007	15 Jan 2018	0902_SD007_180115	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD007	08 Nov 2019	0902_SD007_191108	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD007	14 May 2020	0902_SD007_200514	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD007	14 May 2020	0902_QC207_200514	Interlab_D	NSW_0902_PFASOMP	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005
SD007	12 Nov 2020	0902_SD007_201112	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD007	12 Nov 2020	0902_QC205_201112	Interlab_D	NSW_0902_PFASOMP	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005
SD007	06 May 2021	0902_SD007_210506	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD007	29 Nov 2021	0902_SD007_211129	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD007	29 Nov 2021	0902_QC111_211129	Field_D	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD007	26 May 2022	0902_SD007_220526	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD007	11 Nov 2022	0902_SD007_221111	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD007	11 May 2023	0902_SD007_230511	Normal	NSW_0902_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	03 Jul 2017	0902_SD008_030717	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	27 Feb 2018	0902_SD008_270218	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	08 Nov 2019	0902_SD008_191108	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	0.0012	<0.0005
SD008	14 May 2020	0902_SD008_200514	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	14 May 2020	0902_QC108_200514	Field_D	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	12 Nov 2020	0902_SD008_201112	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	06 May 2021	0902_SD008_210506	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	29 Nov 2021	0902_SD008_211129	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	29 Nov 2021	0902_QC114_211129	Field_D	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	26 May 2022	0902_SD008_220526	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	11 Nov 2022	0902_SD008_221111	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	11 May 2023	0902_SD008_230511	Normal	NSW_0902_PFASOMP_23	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	03 Jul 2017	0902_SD009_030717	Normal	NSW_0902_PFAS	0.0010	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	15 Jan 2018	0902_SD009_180115	Normal	NSW_0902_PFAS	0.0048	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	05 Feb 2018	0902_SD09_050218	Normal	NSW_0902_PFAS	0.0011	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	27 Feb 2018	0902_SD009_270218	Normal	NSW_0902_PFAS	0.0009	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	04 Nov 2019	0902_SD009_191104	Normal	NSW_0902_PFASOMP	0.0020	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	14 May 2020	0902_SD009_200514	Normal	NSW_0902_PFASOMP	0.0040	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	12 Nov 2020	0902_SD009_201112	Normal	NSW_0902_PFASOMP	0.0018	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	06 May 2021	0902_SD009_210506	Normal	NSW_0902_PFASOMP	0.0004	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	29 Nov 2021	0902_SD009_211129	Normal	NSW_0902_PFASOMP	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	29 Nov 2021	0902_QC215_211129	Interlab_D	NSW_0902_PFASOMP	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD009	26 May 2022	0902_SD009_220526	Normal	NSW_0902_PFASOMP	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	18 Nov 2022	0902_SD009_221118	Normal	NSW_0902_PFASOMP	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	11 May 2023	0902_SD009_230511	Normal	NSW_0902_PFASOMP_23	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	04 Jul 2017	0902_SD011_040717	Normal	NSW_0902_PFAS	0.0106	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	04 Jul 2017	0902_QC206_040717	Interlab_D	NSW_0902_PFAS	0.004	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD011	15 Jan 2018	0902_SD011_180115	Normal	NSW_0902_PFAS	0.0072	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	27 Feb 2018	0902_SD011_270218	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	27 Feb 2018	0902_QC221_270218	Interlab_D	NSW_0902_PFAS	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD011	08 Nov 2019	0902_SD011_191108	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	15 May 2020	0902_SD011_200515	Normal	NSW_0902_PFASOMP	<0.0005	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	<0.0012
SD011	12 Nov 2020	0902_SD011_201112	Normal	NSW_0902_PFASOMP	0.0008	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	07 May 2021	0902_SD011_210507	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	29 Nov 2021	0902_SD011_211129	Normal	NSW_0902_PFASOMP	0.0007	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	27 May 2022	0902_SD011_220527	Normal	NSW_0902_PFASOMP	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	11 Nov 2022	0902_SD011_221111	Normal	NSW_0902_PFASOMP	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	11 May 2023	0902_SD011_230511	Normal	NSW_0902_PFASOMP_23	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	03 Jul 2017	0902_SD013_030717	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	08 Nov 2019	0902_SD013_191108	Normal	NSW_0902_PFASOMP	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	14 May 2020	0902_SD013_200514	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	14 May 2020	0902_QC209_200514	Interlab_D	NSW_0902_PFASOMP	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005

Table T10 - Historical Sediment Analytical Results

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids			
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																								
SD013	12 Nov 2020	0902_SD013_201112	Normal	NSW_0902_PFASOMP	<0.0002	0.0148	0.0025	0.0173	0.0173	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	06 May 2021	0902_SD013_210506	Normal	NSW_0902_PFASOMP	0.0006	0.0276	0.0022	0.0298	0.0322	<0.0002	<0.0002	0.0002	0.0003	<0.001	0.0003	0.0006	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	29 Nov 2021	0902_SD013_211129	Normal	NSW_0902_PFASOMP	0.0008	0.178	0.0358	0.214	0.225	0.0006	0.0011	0.0024	0.0017	<0.001	0.0019	0.0013	0.0003	0.0003	0.0004	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	27 May 2022	0902_SD013_220527	Normal	NSW_0902_PFASOMP	<0.0002	0.0463	0.0030	0.0493	0.0507	<0.0002	<0.0002	0.0007	0.0005	<0.001	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	18 Nov 2022	0902_SD013_221118	Normal	NSW_0902_PFASOMP	<0.0002	0.0140	0.0027	0.0167	0.0169	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	11 May 2023	0902_SD013_230511	Normal	NSW_0902_PFASOMP_23	<0.0002	0.0040	0.0012	0.0052	0.0052	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	03 Jul 2017	0902_SD014_030717	Normal	NSW_0902_PFAS	0.0008	0.158	0.0151	0.173	0.182	0.0004	0.0007	0.0019	0.0008	<0.001	<0.0002	0.0006	<0.0002	<0.0002	0.0005	0.0011	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	08 Nov 2019	0902_SD014_191108	Normal	NSW_0902_PFASOMP	<0.0002	0.0004	<0.0002	0.0004	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	08 Nov 2019	0902_QC103_191108	Field_D	NSW_0902_PFASOMP	<0.0002	0.0006	0.0003	0.0009	0.0009	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	14 May 2020	0902_SD014_200514	Normal	NSW_0902_PFASOMP	<0.0002	0.0247	0.0019	0.0266	0.0307	<0.0002	<0.0002	<0.0002	<0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	0.0014	0.0011	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	12 Nov 2020	0902_SD014_201112	Normal	NSW_0902_PFASOMP	<0.0002	0.0136	0.0015	0.0151	0.0198	0.0005	<0.0002	<0.0002	<0.0002	0.002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0006	0.0011	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	06 Apr 2021	0902_QC202_210506	Interlab_D	NSW_0902_PFASOMP	<0.01	0.094	0.056	-	-	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	0.014	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
SD014	06 May 2021	0902_SD014_210506	Normal	NSW_0902_PFASOMP	0.0032	0.0625	0.0523	0.115	0.163	0.0044	0.0054	0.0027	0.0010	<0.001	0.0041	0.0151	0.0014	<0.0002	0.0011	0.0028	0.0060	0.0010	<0.0006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	25 Nov 2021	0902_SD014_211125	Normal	NSW_0902_PFASOMP	0.0005	0.0629	0.0064	0.0693	0.0896	0.0005	0.0004	0.0008	0.0017	<0.001	<0.0002	0.0022	0.0003	<0.0002	0.0009	0.0032	0.0070	0.0012	0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	26 May 2022	0902_SD014_220526	Normal	NSW_0902_PFASOMP	<0.0002	0.0015	0.0003	0.0018	0.0018	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	26 May 2022	0902_QC204_220526	Interlab_D	NSW_0902_PFASOMP	<0.0001	0.0059	0.0008	0.0067	0.0068	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD014	11 Nov 2022	0902_SD014_221111	Normal	NSW_0902_PFASOMP	<0.0002	0.0096	0.0021	0.0117	0.0124	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	0.0004	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	11 May 2023	0902_SD014_230511	Normal	NSW_0902_PFASOMP_23	<0.0002	0.0038	0.0003	0.0041	0.0041	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	03 Jul 2017	0902_SD015_030717	Normal	NSW_0902_PFAS	0.0003	0.0367	0.0033	0.0400	0.0437	<0.0002	<0.0002	0.0003	0.0005	0.001	<0.0002	0.0002	<0.0002	0.0003	0.0003	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.0006	<0.0005	<0.0005
SD015	27 Feb 2018	0902_SD015_270218	Normal	NSW_0902_PFAS	0.0003	0.0179	0.0019	0.0198	0.0201	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	15 Nov 2019	0902_SD015_191115	Normal	NSW_0902_PFASOMP	<0.0002	0.0221	0.0016	0.0237	0.0243	<0.0002	<0.0002	<0.0002	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	15 Nov 2019	0902_QC106_191115	Field_D	NSW_0902_PFASOMP	<0.0002	0.0153	0.0012	0.0165	0.0170	<0.0002	<0.0002	<0.0002	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	14 May 2020	0902_SD015_200514	Normal	NSW_0902_PFASOMP	<0.0002	0.0119	0.0006	0.0125	0.0128	<0.0002	<0.0002	<0.0002	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	12 Nov 2020	0902_SD015_201112	Normal	NSW_0902_PFASOMP	<0.0002	0.0088	0.0007	0.0095	0.0095	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	05 May 2021	0902_SD015_210505	Normal	NSW_0902_PFASOMP	<0.0002	0.0048	0.0005	0.0053	0.0062	<0.0002	<0.0002	<0.0002	0.0009	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	29 Nov 2021	0902_SD015_211129	Normal	NSW_0902_PFASOMP	<0.0002	0.0016	<0.0002	0.0016	0.0016	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	30 May 2022	0902_SD015_220530	Normal	NSW_0902_PFASOMP	<0.0002	0.0044	0.0005	0.0049	0.0049	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	30 May 2022	0902_QC110_220530	Field_D	NSW_0902_PFASOMP	<0.0002	0.0031	0.0005	0.0036	0.0039	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	10 Nov 2022	0902_SD015_221110	Normal	NSW_0902_PFASOMP	<0.0002	0.0030	0.0006	0.0036	0.0036	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	10 May 2023	0902_SD015_230510	Normal	NSW_0902_PFASOMP_23	<0.0002	0.0110	0.0008	0.0118	0.0125	<0.0002	<0.0002	<0.0002	0.0007	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	14 Nov 2009	0902_QC204_191114	Interlab_D	NSW_0902_PFASOMP	<0.001	0.0040	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002
SD016	03 Jul 2017	0902_SD016_030717	Normal	NSW_0902_PFAS	<0.0002	0.0022	<0.0002	0.0022	0.0022	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	15 Jan 2018	0902_SD016_180115	Normal	NSW_0902_PFAS	<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	27 Feb 2018	0902_SD016_270218	Normal	NSW_0902_PFAS	<0.0002	0.0027	<0.0002	0.0027	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	14 Nov 2019	0902_SD016_191114	Normal	NSW_0902_PFASOMP	<0.0002	0.0005	<0.0002	0.0005	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	14 May 2020	0902_SD016_200514	Normal	NSW_0902_PFASOMP	<0.0002	0.0037	<0.0002	0.0037	0.0037	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	13 Nov 2020	0902_SD016_201113	Normal	NSW_0902_PFASOMP	<0.0002	0.0015	<0.0002	0.0015	0.0015	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	05 May 2021	0902_SD016_210505	Normal	NSW_0902_PFASOMP	0.0005	0.0080	0.0006	0.0086	0.0091	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	29 Nov 2021	0902_SD016_211129	Normal	NSW_0902_PFASOMP	<0.0002	0.0027	<0.0002	0.0027	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	30 May 2022	0902_SD016_220530	Normal	NSW_0902_PFASOMP	<0.0002	0.0009	<0.0002	0.0009	0.0009	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	10 Nov 2022	0902_SD016_221110	Normal	NSW_0902_PFASOMP	<0.0002	0.0069	0.0004	0.0073	0.0073	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	10 May 2023	0902_SD016_230510	Normal	NSW_0902_PFASOMP_23	<0.0002	0.0042	0.0005	0.0047	0.0047	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	04 Jul 2017	0902_SD018_040717	Normal	NSW_0902_PFAS	0.0013	0.0235	0.0014	0.0249	0.0350	<0.0002	<0.0002	0.0002	0.0004	<0.001	0.0005	0.0005	0.0005	0.0011	0.0037	0.0012	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	27 Feb 2018	0902_SD018_270218	Normal	NSW_0902_PFAS	0.0004	0.0020	<0.0002	0.0020	0.0030	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0004	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	25 Nov 2019	0902_SD018_191125	Normal	NSW_0902_PFASOMP	0.0005	0.0071	0.0004	0.0075	0.0103	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0006	0.0009	0.0002	0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	25 Nov 2019	0902_QC110_191125	Field_D	NSW_0902_PFASOMP	0.0005	0.0060	0.0004	0.0064	0.0096	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0007	0.0011	0.0003	0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	15 May 2020	0902_SD018_200515	Normal	NSW_0902_PFASOMP	<0.0005	<0.0005	<0.0005	<0.0005	0.0015	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	0.0007	<0.0005	<0.0005	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005
SD018	13 Nov 2020	0902_SD018_201113	Normal	NSW_0902_PFASOMP	<0.0002	0.0009	0.0004	0.0013	0.0026	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0010	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	29 Nov 2021	0902_SD018_211129	Normal	NSW_0902_PFASOMP	<0.0002	0.0005	<0.0002	0.0005	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	31 May 2022	0902_SD018_220531	Normal	NSW_0902_PFASOMP	<0.0002	0.0004	<0.0002	0.0004	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	07 Nov 2022	0902_SD018_221107	Normal	NSW_0902_PFASOMP	<0.0002	0.0022	0.0005	0.0027	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	10 May 2023	0902_SD018_230510	Normal	NSW_0902_PFASOMP_23	<0.0002	0.0002	<0.0002	0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	04 Jul 2017	0902_SD019_040717	Normal	NSW_0902_PFAS	<0.0002	0.0027	0.0005	0.0032	0.0032	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	25 Nov 2019	0902_SD019_191125	Normal	NSW_0902_PFASOMP	<0.0002	0.0016	<0.0002	0.0016	0.0016	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	15 May 2020	0902_SD019_200515	Normal	NSW_0902_PFASOMP	<0.0002	0.0014	<0.0002	0.0014	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	13 Nov 2020	0902_SD019_201113	Normal	NSW_0902_PFASOMP	<0.0002	0.0014	<0.0002	0.0014	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

					PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**							
SD013	12 Nov 2020	0902_SD013_201112	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	06 May 2021	0902_SD013_210506	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	29 Nov 2021	0902_SD013_211129	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	27 May 2022	0902_SD013_220527	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	18 Nov 2022	0902_SD013_221118	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	11 May 2023	0902_SD013_230511	Normal	NSW_0902_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	03 Jul 2017	0902_SD014_030717	Normal	NSW_0902_PFAS	0.0020	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	08 Nov 2019	0902_SD014_191108	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	08 Nov 2019	0902_QC103_191108	Field_D	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	14 May 2020	0902_SD014_200514	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	12 Nov 2020	0902_SD014_201112	Normal	NSW_0902_PFASOMP	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	06 Apr 2021	0902_QC202_210506	Interlab_D	NSW_0902_PFASOMP	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02
SD014	06 May 2021	0902_SD014_210506	Normal	NSW_0902_PFASOMP	0.0003	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006
SD014	25 Nov 2021	0902_SD014_211125	Normal	NSW_0902_PFASOMP	0.0006	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006
SD014	26 May 2022	0902_SD014_220526	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	26 May 2022	0902_QC204_220526	Interlab_D	NSW_0902_PFASOMP	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD014	11 Nov 2022	0902_SD014_221111	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	11 May 2023	0902_SD014_230511	Normal	NSW_0902_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	03 Jul 2017	0902_SD015_030717	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	27 Feb 2018	0902_SD015_270218	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	15 Nov 2019	0902_SD015_191115	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	15 Nov 2019	0902_QC106_191115	Field_D	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	14 May 2020	0902_SD015_200514	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	12 Nov 2020	0902_SD015_201112	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	05 May 2021	0902_SD015_210505	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	29 Nov 2021	0902_SD015_211129	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	30 May 2022	0902_SD015_220530	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	30 May 2022	0902_QC110_220530	Field_D	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	10 Nov 2022	0902_SD015_221110	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	10 May 2023	0902_SD015_230510	Normal	NSW_0902_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD016	14 Nov 2009	0902_QC204_191114	Interlab_D	NSW_0902_PFASOMP	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005
SD016	03 Jul 2017	0902_SD016_030717	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD016	15 Jan 2018	0902_SD016_180115	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD016	27 Feb 2018	0902_SD016_270218	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD016	14 Nov 2019	0902_SD016_191114	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD016	14 May 2020	0902_SD016_200514	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD016	13 Nov 2020	0902_SD016_201113	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD016	05 May 2021	0902_SD016_210505	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD016	29 Nov 2021	0902_SD016_211129	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD016	30 May 2022	0902_SD016_220530	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD016	10 Nov 2022	0902_SD016_221110	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD016	10 May 2023	0902_SD016_230510	Normal	NSW_0902_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD018	04 Jul 2017	0902_SD018_040717	Normal	NSW_0902_PFAS	0.0004	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD018	27 Feb 2018	0902_SD018_270218	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD018	25 Nov 2019	0902_SD018_191125	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD018	25 Nov 2019	0902_QC110_191125	Field_D	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD018	15 May 2020	0902_SD018_200515	Normal	NSW_0902_PFASOMP	<0.0005	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	<0.0012
SD018	13 Nov 2020	0902_SD018_201113	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD018	29 Nov 2021	0902_SD018_211129	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD018	31 May 2022	0902_SD018_220531	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD018	07 Nov 2022	0902_SD018_221107	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD018	10 May 2023	0902_SD018_230510	Normal	NSW_0902_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD019	04 Jul 2017	0902_SD019_040717	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD019	25 Nov 2019	0902_SD019_191125	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD019	15 May 2020	0902_SD019_200515	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD019	13 Nov 2020	0902_SD019_201113	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005

Table T10 - Historical Sediment Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids			
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR						0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																								
SD019	07 May 2021	0902_SD019_210507	Normal	NSW_0902_PFASOMP		0.0002	0.0036	0.0006	0.0042	0.0044	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	29 Nov 2021	0902_SD019_211129	Normal	NSW_0902_PFASOMP		<0.0002	0.0056	0.0009	0.0065	0.0065	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	31 May 2022	0902_SD019_220531	Normal	NSW_0902_PFASOMP		<0.0002	0.0008	<0.0002	0.0008	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	07 Nov 2022	0902_SD019_221107	Normal	NSW_0902_PFASOMP		<0.0002	0.0023	<0.0002	0.0023	0.0023	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	10 May 2023	0902_SD019_230510	Normal	NSW_0902_PFASOMP_23		<0.0002	0.0005	<0.0002	0.0005	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	13 Nov 2017	0902_SD20_131117	Normal	NSW_0902_PFAS		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	25 Nov 2019	0902_SD020_191125	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	15 May 2020	0902_SD020_200515	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	13 Nov 2020	0902_SD020_201113	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	07 May 2021	0902_SD020_210507	Normal	NSW_0902_PFASOMP		<0.0002	0.0055	<0.0002	0.0055	0.0055	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	29 Nov 2021	0902_SD020_211129	Normal	NSW_0902_PFASOMP		<0.0002	0.0047	<0.0002	0.0047	0.0047	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	31 May 2022	0902_SD020_220531	Normal	NSW_0902_PFASOMP		<0.0002	0.0007	<0.0002	0.0007	0.0007	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	07 Nov 2022	0902_SD020_221107	Normal	NSW_0902_PFASOMP		<0.0002	0.0007	<0.0002	0.0007	0.0007	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	10 May 2023	0902_SD020_230510	Normal	NSW_0902_PFASOMP_23		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	13 Nov 2017	0902_SD22_131117	Normal	NSW_0902_PFAS		<0.0002	0.0014	<0.0002	0.0014	0.0101	<0.0002	<0.0002	<0.0002	0.0058	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	15 Nov 2019	0902_SD022_191115	Normal	NSW_0902_PFASOMP		<0.0002	0.0004	<0.0002	0.0004	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	15 Nov 2019	0902_QC108_191115	Field_D	NSW_0902_PFASOMP		<0.0002	0.0003	<0.0002	0.0003	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	15 May 2020	0902_SD022_200515	Normal	NSW_0902_PFASOMP		<0.0005	0.0037	<0.0005	0.0037	0.0068	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0017	0.0014	<0.0005	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005
SD022	13 Nov 2020	0902_SD022_201113	Normal	NSW_0902_PFASOMP		0.0003	0.0047	0.0004	0.0051	0.0144	<0.0002	<0.0002	<0.0002	0.0068	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0008	0.0003	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	05 May 2021	0902_SD022_210505	Normal	NSW_0902_PFASOMP		0.0002	0.0036	0.0003	0.0039	0.0095	<0.0002	<0.0002	<0.0002	0.0032	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	29 Nov 2021	0902_SD022_211129	Normal	NSW_0902_PFASOMP		<0.0002	0.0027	0.0003	0.0030	0.0045	<0.0002	<0.0002	<0.0002	0.0012	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	30 May 2022	0902_SD022_220530	Normal	NSW_0902_PFASOMP		<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	03 Nov 2022	0902_SD022_221103	Normal	NSW_0902_PFASOMP		<0.0002	0.0049	0.0007	0.0056	0.0075	<0.0002	<0.0002	<0.0002	0.0011	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	03 Nov 2022	0902_QC102_221103	Field_D	NSW_0902_PFASOMP		<0.0002	0.0100	0.0016	0.0116	0.0211	0.0002	<0.0002	<0.0002	0.0035	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	03 Nov 2022	0902_QC202_221103	Interlab_D	NSW_0902_PFASOMP		<0.0001	0.0068	0.0009	0.0077	0.017	0.0001	0.0001	<0.0001	0.0053	<0.0002	<0.0002	0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD022	09 May 2023	0902_SD022_230509	Normal	NSW_0902_PFASOMP_23		<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	13 Nov 2017	0902_SD23_131117	Normal	NSW_0902_PFAS		<0.0002	0.0158	0.0008	0.0166	0.0194	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0002	0.0003	<0.0002	<0.0002	0.0002	0.0005	0.0006	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	0.0010
SD023	13 Nov 2017	0902_QC180_131117	Field_D	NSW_0902_PFAS		<0.0002	0.0126	0.0008	0.0134	0.0145	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0003	0.0004	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	15 Jan 2018	0902_SD023_180115	Normal	NSW_0902_PFAS		<0.0002	0.0004	<0.0002	0.0004	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	15 Jan 2018	0902_QC111_180115	Field_D	NSW_0902_PFAS		<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	11 Nov 2019	0902_SD023_191111	Normal	NSW_0902_PFASOMP		<0.0002	0.0075	0.0006	0.0081	0.0089	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0003	0.0003	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	15 May 2020	0902_SD023_200515	Normal	NSW_0902_PFASOMP		0.0005	0.0312	0.0008	0.0320	0.0373	<0.0002	<0.0002	<0.0002	0.0003	0.002	<0.0002	0.0004	<0.0002	0.0004	0.0004	0.0004	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	13 Nov 2020	0902_SD023_201113	Normal	NSW_0902_PFASOMP		<0.0002	0.0019	0.0002	0.0021	0.0021	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	25 Nov 2021	0902_SD023_211125	Normal	NSW_0902_PFASOMP		<0.0002	0.0094	0.0004	0.0098	0.0098	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	25 Nov 2021	0902_QC109_211125	Field_D	NSW_0902_PFASOMP		<0.0002	0.0087	0.0003	0.0090	0.0090	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	31 May 2022	0902_SD023_220531	Normal	NSW_0902_PFASOMP		<0.0002	0.0003	<0.0002	0.0003	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	07 Nov 2022	0902_SD023_221107	Normal	NSW_0902_PFASOMP		<0.0002	0.0023	0.0005	0.0028	0.0028	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	07 Nov 2022	0902_QC110_221107	Field_D	NSW_0902_PFASOMP		<0.0002	0.0020	0.0004	0.0024	0.0024	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	10 May 2023	0902_SD023_230510	Normal	NSW_0902_PFASOMP_23		<0.0002	0.0004	<0.0002	0.0004	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	13 Nov 2017	0902_SD24_131117	Normal	NSW_0902_PFAS		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	15 Nov 2019	0902_SD024_191115	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	14 May 2020	0902_SD024_200514	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	12 Nov 2020	0902_SD024_201112	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	05 May 2021	0902_SD024_210505	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	26 Nov 2021	0902_SD024_211126	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	31 May 2022	0902_SD024_220531	Normal	NSW_0902_PFASOMP		<0.0002	0.0009	<0.0002	0.0009	0.0012	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	03 Nov 2022	0902_SD024_221103	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	09 May 2023	0902_SD024_230509	Normal	NSW_0902_PFASOMP_23		<0.0002	0.0005	<0.0002	0.0005	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	17 Nov 2013	0902_QC281_131117	Interlab_D	NSW_0902_PFAS		<0.0001	<0.0001	<0.0001	-	-	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001
SD030	13 Nov 2017	0902_SD30_131117	Normal	NSW_0902_PFAS		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	18 Jan 2018	0902_SD030_180118	Normal	NSW_0902_PFAS		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	27 Feb 2018	0902_SD030_270218	Normal	NSW_0902_PFAS		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	15 Nov 2019	0902_SD030_191115	Normal	NSW_0902_PFASOMP		<0.0002	0.0003	<0.0002	0.0003	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	15 May 2020	0902_SD030_200515	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	13 Nov 2020	0902_SD030_201113	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	07 May 2021	0902_SD030_210507	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

					PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**							
SD019	07 May 2021	0902_SD019_210507	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD019	29 Nov 2021	0902_SD019_211129	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD019	31 May 2022	0902_SD019_220531	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD019	07 Nov 2022	0902_SD019_221107	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD019	10 May 2023	0902_SD019_230510	Normal	NSW_0902_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD020	13 Nov 2017	0902_SD20_131117	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD020	25 Nov 2019	0902_SD020_191125	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD020	15 May 2020	0902_SD020_200515	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD020	13 Nov 2020	0902_SD020_201113	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD020	07 May 2021	0902_SD020_210507	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD020	29 Nov 2021	0902_SD020_211129	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD020	31 May 2022	0902_SD020_220531	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD020	07 Nov 2022	0902_SD020_221107	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD020	10 May 2023	0902_SD020_230510	Normal	NSW_0902_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD022	13 Nov 2017	0902_SD22_131117	Normal	NSW_0902_PFAS	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	0.0024	<0.0005
SD022	15 Nov 2019	0902_SD022_191115	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD022	15 Nov 2019	0902_QC108_191115	Field_D	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD022	15 May 2020	0902_SD022_200515	Normal	NSW_0902_PFASOMP	<0.0005	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	<0.0012
SD022	13 Nov 2020	0902_SD022_201113	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	0.0006	<0.0005
SD022	05 May 2021	0902_SD022_210505	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	0.0012	<0.0005
SD022	29 Nov 2021	0902_SD022_211129	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD022	30 May 2022	0902_SD022_220530	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD022	03 Nov 2022	0902_SD022_221103	Normal	NSW_0902_PFASOMP	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD022	03 Nov 2022	0902_QC102_221103	Field_D	NSW_0902_PFASOMP	0.0013	<0.0005	0.0006	<0.0005	<0.0005	0.0033	<0.0005
SD022	03 Nov 2022	0902_QC202_221103	Interlab_D	NSW_0902_PFASOMP	0.001	<0.001	0.0003	<0.001	<0.001	0.0021	<0.005
SD022	09 May 2023	0902_SD022_230509	Normal	NSW_0902_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	13 Nov 2017	0902_SD23_131117	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	13 Nov 2017	0902_QC180_131117	Field_D	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	15 Jan 2018	0902_SD023_180115	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	15 Jan 2018	0902_QC111_180115	Field_D	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	11 Nov 2019	0902_SD023_191111	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	15 May 2020	0902_SD023_200515	Normal	NSW_0902_PFASOMP	0.0004	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	13 Nov 2020	0902_SD023_201113	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	25 Nov 2021	0902_SD023_211125	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	25 Nov 2021	0902_QC109_211125	Field_D	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	31 May 2022	0902_SD023_220531	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	07 Nov 2022	0902_SD023_221107	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	07 Nov 2022	0902_QC110_221107	Field_D	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD023	10 May 2023	0902_SD023_230510	Normal	NSW_0902_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD024	13 Nov 2017	0902_SD24_131117	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD024	15 Nov 2019	0902_SD024_191115	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD024	14 May 2020	0902_SD024_200514	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD024	12 Nov 2020	0902_SD024_201112	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD024	05 May 2021	0902_SD024_210505	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD024	26 Nov 2021	0902_SD024_211126	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD024	31 May 2022	0902_SD024_220531	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD024	03 Nov 2022	0902_SD024_221103	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD024	09 May 2023	0902_SD024_230509	Normal	NSW_0902_PFASOMP_23	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD030	17 Nov 2013	0902_QC281_131117	Interlab_D	NSW_0902_PFAS	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD030	13 Nov 2017	0902_SD30_131117	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD030	18 Jan 2018	0902_SD030_180118	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD030	27 Feb 2018	0902_SD030_270218	Normal	NSW_0902_PFAS	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD030	15 Nov 2019	0902_SD030_191115	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD030	15 May 2020	0902_SD030_200515	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD030	13 Nov 2020	0902_SD030_201113	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD030	07 May 2021	0902_SD030_210507	Normal	NSW_0902_PFASOMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005

Table T10 - Historical Sediment Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids			
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR						0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																								
SD030	29 Nov 2021	0902_SD030_211129	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	31 May 2022	0902_SD030_220531	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	07 Nov 2022	0902_SD030_221107	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	07 Nov 2022	0902_QC210_221107	Interlab_D	NSW_0902_PFASOMP		<0.0001	0.0025	0.0003	0.0029	0.0032	<0.0001	<0.0001	<0.0001	0.0004	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD030	10 May 2023	0902_SD030_230510	Normal	NSW_0902_PFASOMP_23		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	10 May 2023	0902_QC108_230510	Field_D	NSW_0902_PFASOMP_23		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	10 May 2023	0902_QC208_230510	Interlab_D	NSW_0902_PFASOMP_23		<0.0001	0.0001	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD035	16 Nov 2017	0902_SD035_161117	Normal	NSW_0902_PFAS		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	15 Nov 2019	0902_SD035_191115	Normal	NSW_0902_PFASOMP		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	14 May 2020	0902_SD035_200514	Normal	NSW_0902_PFASOMP		<0.0002	0.0012	<0.0002	0.0012	0.0022	<0.0002	<0.0002	<0.0002	<0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	13 Nov 2020	0902_SD035_201113	Normal	NSW_0902_PFASOMP		<0.0002	0.0003	<0.0002	0.0003	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	06 May 2021	0902_SD035_210506	Normal	NSW_0902_PFASOMP		<0.0002	0.0021	<0.0002	0.0021	0.0021	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	25 Nov 2021	0902_SD035_211125	Normal	NSW_0902_PFASOMP		<0.0002	0.0018	0.0004	0.0022	0.0022	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	30 May 2022	0902_SD035_220530	Normal	NSW_0902_PFASOMP		<0.0002	0.0015	0.0004	0.0019	0.0019	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	03 Nov 2022	0902_SD035_221103	Normal	NSW_0902_PFASOMP		<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	09 May 2023	0902_SD035_230509	Normal	NSW_0902_PFASOMP_23		<0.0002	0.0008	<0.0002	0.0008	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	09 May 2023	0902_QC106_230509	Field_D	NSW_0902_PFASOMP_23		<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	09 May 2023	0902_QC206_230509	Interlab_D	NSW_0902_PFASOMP_23		<0.0001	0.0007	<0.0001	0.0007	0.0007	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Table T10 - Historical Sediment Analytical Results

					PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR					0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**							
SD030	29 Nov 2021	0902_SD030_211129	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	31 May 2022	0902_SD030_220531	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	07 Nov 2022	0902_SD030_221107	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	07 Nov 2022	0902_QC210_221107	Interlab_D	NSW_0902_PFASOMP	*<0.001*	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*
SD030	10 May 2023	0902_SD030_230510	Normal	NSW_0902_PFASOMP_23	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	10 May 2023	0902_QC108_230510	Field_D	NSW_0902_PFASOMP_23	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	10 May 2023	0902_QC208_230510	Interlab_D	NSW_0902_PFASOMP_23	*<0.001*	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*
SD035	16 Nov 2017	0902_SD035_161117	Normal	NSW_0902_PFAS	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	15 Nov 2019	0902_SD035_191115	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	14 May 2020	0902_SD035_200514	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	13 Nov 2020	0902_SD035_201113	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	06 May 2021	0902_SD035_210506	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	25 Nov 2021	0902_SD035_211125	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	30 May 2022	0902_SD035_220530	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	03 Nov 2022	0902_SD035_221103	Normal	NSW_0902_PFASOMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	09 May 2023	0902_SD035_230509	Normal	NSW_0902_PFASOMP_23	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	09 May 2023	0902_QC106_230509	Field_D	NSW_0902_PFASOMP_23	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	09 May 2023	0902_QC206_230509	Interlab_D	NSW_0902_PFASOMP_23	*<0.001*	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Appendix C

Calibration Certificates

Certificate of Service and Calibration

Interface Meter

Heron H.Oil

Company Name	WAM Scientific
Office Address	26 Bungarra Crescent, Chipping Norton NSW 2170
Phone Number	+61 405 241 484
Contact Name	William Pak
Instrument	Heron H.Oil Interface Meter (30m)
Serial Number	01-7967
Client Name	Nicola Tomlin / Jessica Roy (AECOM Australia Pty Ltd)
Project Number	60612562_5.1

Instrument Check			
Item	Test	Test Passed	Comments
9V Battery	Klein Tools MM300 Multimeter	✓	Battery voltage reading above 7.9V
Battery Box	Check	✓	No damage
Face and Back Plates	Check	✓	No damage
Thumb Screws	Check	✓	Rubber ends intact
Tape Hangar/Protector	Check	✓	No damage
On/Off Button	Operation	✓	Button is functional
Buzzer	Operation	✓	Intermittent tone in H_2O, solid tone in product
LED Signal Light	Operation	✓	LED light functional – green and red
Probe	Operation/Check	✓	Decontaminated, cleaned and tested
Tape	Condition/Check	✓	Decontaminated and cleaned, no damage
Connection	Check	✓	Probe and link connected correctly and tightly
PCB	Operation	✓	Unit is fully functional
Electronics Panel	Orientation	✓	Correctly aligned

Instrument Readings		
Product	Buzzer	LED Light
H_2O	Intermittent	Blinking – Red
Petroleum	Solid	Steady – Red

Declaration
WAM Scientific certifies that the above instrument was successfully tested according to manufacturer's standards and all necessary checks were conducted to ensure the instrument was fully operational prior to dispatch. The interface meter was decontaminated, cleaned and tested with a mixture of tap water and petrol, shielded from ambient light.

Checked By	William Pak
Calibration Date	02/05/2023
Calibration Due	02/11/2023

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service@wamscientific.com.au

WAMSCIENTIFIC
Your water and air monitoring equipment specialists

Certificate of Service and Calibration
Water Quality Meter
YSI Professional Plus

Company Name	WAM Scientific
Office Address	26 Bungarra Crescent, Chipping Norton NSW 2170
Phone Number	+61 405 241 484
Contact Name	William Pak
Instrument	YSI Pro Plus Water Quality Meter w/ 1m Quatro Cable
Serial Number	21A102653
Client Name	Nicola Tomlin / Jessica Roy (AECOM Australia Pty Ltd)
Project Number	60612562_5.1
Comments	-

Instrument Check

Item	Test	Test Passed	Comments
2 x Alkaline C-size Batteries	Klein Tools MM300 Multimeter	✓	Both batteries reading above 2.9V
Battery Saver Function	Operation	✓	Automatically turns off after 60 minutes if idle
Unit Display	Operation	✓	Screen visible, no damage
Keypad	Operation	✓	Responsive, no damage
Connection Port and Cable	Condition/Check	✓	Clean, no damage
Monitor Housing	Condition/Check	✓	No damage
Firmware	Version	✓	4.0.0
pH Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
pH millivolts for pH 7.00	Calibration	✓	pH 7.00 calibration range between 0 mV ± 50 mV
pH millivolts for pH 4.00	Calibration	✓	pH 4 mV range +165 to +180 from 7 buffer mV value
pH slope	Calibration	✓	Range between 55 to 60 mV/pH (ideal value 59 mV)
Response time < 90 seconds	Calibration	✓	Responds to correct value within 90 seconds
ORP Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
ORP Reading	Calibration	✓	Within ± 80 mV of reference Zobell Reading
Response time < 90 seconds	Calibration	✓	Responds to correct value within 90 seconds
Conductivity/Temp Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
Conductivity Cell	Calibration	✓	Conductivity cell constant 5.0 ± 1.0 in GLP file
Clean Sensor Readings	Calibration	✓	Clean sensor reads less than 3 uS/cm in dry air
Dissolved Oxygen Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
DO Cap	Condition/Calibration	✓	1.25 mil PE membrane (yellow membrane)
DO Sensor in Use	Condition	✓	Polarographic DO sensor
DO Sensor Value	Calibration	✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA

Instrument Readings

Parameter	Standard Used	Reference No.	Calibration Value	Observed	Actual	Units
Temperature	Centre 370 Thermometer	Room Temp.	18.3	18.3	18.3	°C
pH	pH 4.00	386466	4.01	3.99	4.01	pH
pH	pH 7.00	387329	7.00	6.94	7.00	pH
Conductivity	2760 µs/cm at 25°C	388521	2760	2752	2760	µs/cm
ORP (Ref. check only)	Zobell A & B	380835/382785	240.7	263.3	240.7	mV
Zero Dissolved O_2	$NaSO_3$ in Distilled H_2O	389912	0.0	-1.0	0.0	%
100% Dissolved O_2	100% Air Saturated H_2O	Fresh Air	100.0	101.9	100.0	%

Declaration

WAM Scientific certifies that the above instrument was successfully tested according to manufacturer's standards and all necessary checks were conducted to ensure the instrument was fully operational prior to dispatch. The calibration data supplied was obtained in accordance with manufacturer's specifications using solutions of known values.

Calibrated By	William Pak
Calibration Date	03/05/2023
Calibration Due	03/11/2023

WAMSCIENTIFIC
Your water and air monitoring equipment specialists

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AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	NSW PFAS OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	DoD
PM Name:	G.Tredinnick	**Fieldwork Staff Name:**	JR, NT

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM Scientific
Make and Model:	YSI Pro Plus
Serial Number:	21A102653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	8/5/23 , 08:45				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	–	7.00	–	–	–
Calibration Reading:	–	7.00	–	–	–
Calibration Temperature:	–	14.4	–	–	–

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	mg/L ~~ppm~~	ppm
Calibration Standard Concentration:	4.00	7.00	2180	0.00	–
Bump Test Reading:	4.05	7.12	2168	0.00	–
Bump Test Temperature:	13.7°C	14.4	13.8	14.1	–

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

8/5/23
Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	NSW PFAS OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	DoD
PM Name:	G.Tredinnick	**Fieldwork Staff Name:**	JR, NT

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM Scientific
Make and Model:	YSI Pro Plus
Serial Number:	21A102653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	9/5/23 7:00				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	–	7.00	2233	–	–
Calibration Reading:	–	7.00	2233	–	–
Calibration Temperature:	–	14.0	15.3	–	–

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	mg/L ~~ppm~~	ppm
Calibration Standard Concentration:	4.00	7.0	2233	0.00	–
Bump Test Reading:	4.02	7.10	2142	0.00	–
Bump Test Temperature:	13.8	14.0	15.3	15.3	–

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

9/5/23
Date

Distribution: Project Central File

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	NSW PFAS OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	DoD
PM Name:	G.Tredinnick	**Fieldwork Staff Name:**	JR, NT

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM SCIENTIFIC
Make and Model:	YSI PRO PLUS
Serial Number:	21A102653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:					
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	–	–	2338	–	
Calibration Reading:	–	–	2338	–	
Calibration Temperature:	–	–	17.0	–	

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time: 10/5/23	0630				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	~~mg/L~~ ppm	ppm
Calibration Standard Concentration:	4	7	2338	0	
Bump Test Reading:	4.01	6.98	2487	0.02	
Bump Test Temperature:	16.6	16.8	17.0	16.9	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

N/A

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

10/5/23
Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	NSW PFAS OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	DoD
PM Name:	G.Tredinnick	**Fieldwork Staff Name:**	JR, NT

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM SCIENTIFIC
Make and Model:	FSI PRO PLUS
Serial Number:	21A102653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	11/5/23				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:		7	2286		
Calibration Reading:		7.00	2286		
Calibration Temperature:		15.4	16.0		

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	11/5/23 0645				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	mg/L ppm	ppm
Calibration Standard Concentration:	4	7	2286	0	
Bump Test Reading:	4.03	6.87	2229	0.01	
Bump Test Temperature:	15.7	15.4	16.0	15.8	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

11/5/23
Date

Distribution: Project Central File

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	NSW PFAS OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	DoD
PM Name:	G.Tredinnick	**Fieldwork Staff Name:**	JR, NT

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM SCIENTIFIC
Make and Model:	YSI PRO PLUS
Serial Number:	21A102653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	12/5/23 0530				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	4		1969		
Calibration Reading:	4.00		1967		
Calibration Temperature:	10.8		9.7		

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	12/5/23 0530				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	mg/L ~~ppm~~	ppm
Calibration Standard Concentration:	4	7	1969	0	
Bump Test Reading:	4.15	7.02	1563	0.1	
Bump Test Temperature:	10.7	9.8	10.0	9.9	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☐ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature — Date: 12/5/23

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	NSW PFAS OMP	**Project Number:**	60612562
Project Location:	Richmond	**Client:**	DoD
PM Name:	G.Tredinnick	**Fieldwork Staff Name:**	JR, NT

This calibration record is intended to prompt fieldwork staff to calibrate water quality meter (WQM) daily before the start of fieldworks.

INSTRUMENT DETAILS

Supplier:	WAM SCIENTIFIC
Make and Model:	YSI PRO PLUS
Serial Number:	21A102653

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	15/5/23				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:	–	7	2180	–	
Calibration Reading:	–	6.99	2183	–	
Calibration Temperature:	–	14.0	14.3	–	

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	15/5/23 1030				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	mg/L ~~ppm~~	ppm
Calibration Standard Concentration:	4	7	2180	0	
Bump Test Reading:	4.02	6.88	~~2180~~ 2644	0.0	
Bump Test Temperature:	15.0	14.0	14.3	14.0	

COMMENTS

Detail any equipment faults, minor maintenance performed, change of batteries or technical support provided.

Approval and Distribution

☑ Each individual instrument has been inspected and calibrated daily and bump tested as required by fieldwork staff.

Fieldwork Staff Signature

15/5/23
Date

Distribution: Project Central File

Appendix D

Analytical Data Validation

DATA VALIDATION REPORT

Project number:	60612562	Validation by:	[redacted]	Date:	15/06/2023
Client:	Department of Defence	Data verified by:		Date:	16/06/2022
Site:	RAAF Base Richmond	Project Manager:			
Matrix type:	Groundwater, Surface Water, and Sediment				
Primary samples:	81 Groundwater samples, 21 Surface Water samples, 20 Sediment samples				
Laboratory:	Primary: ALS, Secondary: Envirolab				
Lab reference:	ES2316196 (ALS), ES2319454 (ALS - resampling), 323268 (Envirolab)				

Key Issues:	No QA/QC issues were identified in the field or laboratory datasets that could have a material implication to decision-making on the project.

Field Quality Assurance and Quality Control

Field DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2023).
Sampling personnel	Sampling was conducted by Jack Rawsthorne and Nicola Tomlin between 8/05/2023 and 15/05/2023, and subsequent resampling completed on 9/06/23. Field personnel were both suitably qualified and experienced AECOM Environmental Scientists and Engineers.
Sampling Methodology	All water and sediment samples were collected in accordance with the methodology outlined in the SAQP (AECOM, 2023). After each sample was collected, reusable equipment was decontaminated using Liquinox and potable water, and the consumables (nitrile gloves and HydraSleeve™ materials) were disposed of in waste bins.
Chain of Custody (COC)	All samples collected were reported on the Chain of Custody documents (COC) and subsequent email amendments and analysed for requested analytes.
Rinsate Blank	Rinsate blank samples were collected at a frequency of 1 per day of sampling where equipment was re-used and decontaminated between sample points (for a total of 7 rinsate blank samples collected). Rinsate blank samples were either collected from the final rinse of the interface probe or sampling trowel following decontamination, using laboratory-supplied de-ionised water.
Frequency of field QC	Field duplicates (intra-laboratory duplicates) and triplicates (inter-laboratory duplicates) were collected at a frequency slightly greater than one in ten primary samples (10%), exceeding the DQI. In total: • 11 water field duplicates and 11 water field triplicates were collected (10.78%) for 102 primary water samples • 3 sediment field duplicates and 3 sediment field triplicates were collected (15%) for 20 primary sediment samples.
Handling and preservation	All samples were received by the primary and secondary laboratories in appropriate containers, with ice present, within the recommended temperature range (<6°C) with the exception of the following: • Temperature: ES2319454 (8.3°C) Given that the laboratory reported the cooling media was ice and that the analytical groups tested are of non-volatile nature, AECOM considers that the temperature anomaly is not significant.
Calibration of equipment	Measurements of water geochemical parameters were undertaken using YSI Professional Plus water quality meters, which were calibrated by the supplier prior to

	use, in accordance with the manufacturer's instructions and bump tested daily by the field personnel. Measurements of depth to groundwater were undertaken using interface probes, which were serviced by the supplier prior to use. All equipment calibration and service certificates are presented in Appendix C.
Laboratory QA/QC	
Laboratory DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2023).
Tests requested/reported	All samples were analysed for per- and polyfluoroalkyl substances (PFAS) extended suite. All sample requests for analysis are reported on the Chain of Custody (COC).
Holding time compliance	All samples were extracted and analysed by the laboratory within the recommended holding times.
Laboratory accreditation	The primary laboratory analysis was conducted by ALS Environmental Pty Ltd (Sydney) a National Association of Testing Authorities (NATA) accredited laboratory (Accreditation No. 825). The secondary samples were analysed at Envirolab Services, also a NATA accredited laboratory (accreditation number 2901).
Frequency of laboratory QC	The primary laboratory ALS reported a sufficient frequency of quality control samples to assess whether the results have been reported with acceptable accuracy and precision, with the exception of: Laboratory Duplicates • ES2316196: PFAS by LCMSMS: (actual rate: 9.77%, expected rate: 10.00%) The precision and accuracy of the data can be assessed as acceptable based on method blanks, laboratory control spike and surrogate spike recoveries, which were reported at the required frequencies and within control limits, and the reported laboratory duplicates and matrix spikes which were within control limits.
Method Blank	All method blank concentrations were reported <LOR (limit of reporting) for the analytes tested, meeting the project requirements. This is presented in the Quality Control Reports for both laboratories.
Laboratory duplicate RPDs	The reported laboratory duplicate's Relative Percentage Differences (RPDs) were within laboratory control limits. The laboratory duplicate RPDs are presented in the Quality Control Reports for the primary laboratory.
LCS recovery	Laboratory control spike (LCS) recoveries were within control limits. This is presented in the Quality Control Reports for both laboratories.
Matrix spike recovery	Matrix spike (MS) recoveries were within control limits with the exception of: Non-determined MS recoveries • ES2316196: Perfluorohexane sulfonic acid (PFHxS), 0902_MW026_230512 • ES2316196: PFHxS, 0902_QC111_230512 • ES2316196: Perfluorooctane sulfonic acid (PFOS), 0902_QC111_230512 These non-determinations were due to background levels being greater than or equal to four times spike levels, which do not reflect method bias or affect data interpretation.
Surrogate spike recovery	The reported surrogate spike recoveries were within laboratory control limits.

DATA VALIDATION REPORT

QA/QC Data Evaluation	
Comparison of Field Observations and Laboratory Results	No anomalies between field observations and analytical results were noted.
Anomalous data / Repeat Analysis	Following the reporting of PFAS concentrations which were first time detections and new exceedances at two locations (MW143 and MW144, sampled on 10 May 2023), the primary laboratory was requested to confirm the results by re-analysis for the primary samples and intra-laboratory duplicate associated with MW143 (QC112). The repeat analysis confirmed the originally reported concentrations. Additionally, MW143 and MW144 were resampled on 9 June 2023 to confirm the results for samples collected on 10 May 2023. Given that these monitoring wells have paired surface water locations (SW015 and SW016), the surface water locations were also sampled and analysed for comparison purposes. The new results for MW143 and MW144 confirmed the reported concentrations (and re-analysis) for samples collected on 10 May 2023. The results for SW015 and SW016 were within the historical ranges.
Data transcription	A check of the laboratory results identified no anomalies within the electronic data, the laboratory reports, and the tables generated by AECOM.
Limits of reporting	With the exception of the PFAS NEMP Freshwater 99% species protection (HEPA 2020) values for PFOS, the laboratory LORs were sufficiently low to enable assessment against adopted guideline criteria.
Rinsate Blank sample results	The concentrations of PFAS in the Rinsate Blank samples (Table D3) were below the LOR.
Intra/Inter-laboratory duplicate RPDs for Field Duplicates / Triplicates	Field duplicates (intra-laboratory duplicates) RPDs for field duplicates (intra-laboratory duplicates) and triplicates (inter-laboratory duplicates) were reported within acceptable limits (≤30%, or ≤50% for results 10-20 x LOR, or No Limit for results <10 x LOR), with the exception of: <u>Intra-laboratory duplicates (Field Duplicates) RPDs</u> - 0902_SD001/QC101 - RPDs ranging between 154% and 188% for various PFAS. - 0902_MW107D/QC102 - RPDs ranging between 48% and 103% for various PFAS. - 0902_MW068/QC103 - RPD of 40% for Perfluorooctane sulfonic acid (PFOS). - 0902_MW063/QC104 - RPDs ranging between 31% and 73% for various PFAS. - 0902_MW079/QC111 - RPD of 38% for PFOS. <u>Inter-laboratory duplicates (Field Triplicates) RPDs</u> - 0902_SD001/QC201 - RPDs ranging between 75% and 143% for various PFAS. - 0902_MW107D/QC202 - RPDs ranging between 90% and 134% for various PFAS. - 0902_MW063/QC204 - RPDs ranging between 33% and 99% for various PFAS. - 0902_MW069/QC213 - RPD of 40% for Perfluorohexane sulfonic acid (PFHxS). The elevated RPDs for groundwater duplicate pairs were generally within the same order of magnitude and therefore considered acceptable.

	The elevated RPDs for sediments are likely to be attributed to the heterogeneous nature of the sediment sampled and therefore are considered acceptable. Where required for quantitative purposes, the highest concentrations from the primary and duplicate pairs will be used in the report.
Overall Assessment	
	Data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

Attached:

Table D1 – Water RPDs

Table D2 – Sediment RPDs

Table D3 – Rinsate Blank Results

Table D1 - Water Duplicate RPDs

Lab Report Number			ES2316196	ES2316196		ES2316196	323268		ES2316196	ES2316196		ES2316196	323268	
Field ID			0902_MW075_230508	0902_QC100_230508		0902_MW075_230508	0902_QC200_230508		0902_MW107D_230508	0902_QC102_230508		0902_MW107D_230508	0902_QC202_230508	
Matrix Type			Water	Water		Water	Water		Water	Water		Water	Water	
Date			08 May 2023	08 May 2023	RPD	08 May 2023	08 May 2023	RPD	08 May 2023	08 May 2023	RPD	08 May 2023	08 May 2023	RPD
	Unit	LOR												
PFAS														
Perfluorooctanoic acid (PFOA)	µg/L	0.01	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0	0.63	0.22	**96**	0.63	0.13	**132**
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0	4.53	1.88	**83**	4.53	0.89	**134**
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0	5.20	3.19	**48**	5.20	2.8	**60**
Sum of PFHxS and PFOS	µg/L	0.01	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0	9.73	5.07	**63**	9.73	3.7	**90**
Sum of PFAS	µg/L	0.01	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0	15.2	7.25	**71**	15.2	5.4	**95**
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	0.86	0.36	**82**	0.86	0.29	**99**
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	0.95	0.46	**70**	0.95	0.33	**97**
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	0.42	0.17	**85**	0.42	0.12	**111**
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.02	*<0.1*	*<0.1*	0	*<0.1*	*<0.02*	0	0.2	*<0.1*	67	0.2	0.06	108
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	0.44	0.14	**103**	0.44	0.1	**126**
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	1.65	0.72	**78**	1.65	0.55	**100**
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	0.29	0.11	**90**	0.29	0.07	**122**
Perfluorononanoic acid (PFNA)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluorodecanoic acid (PFDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.05*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.05*	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.01	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.02	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.02	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0
PFAS - Perfluoroalkyl Sulfonamides														
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.1*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.1*	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

Lab Report Number			ES2316196	ES2316196		ES2316196	323268		ES2316196	ES2316196		ES2316196	323268		ES2316196
Field ID			0902_MW068_230509	0902_QC103_230509		0902_MW068_230509	0902_QC203_230509		0902_MW063_230509	0902_QC104_230509		0902_MW063_230509	0902_QC204_230509		0902_SW022_230509
Matrix Type			Water	Water		Water	Water		Water	Water		Water	Water		Water
Date			09 May 2023	09 May 2023	RPD	09 May 2023	09 May 2023	RPD	09 May 2023	09 May 2023	RPD	09 May 2023	09 May 2023	RPD	09 May 2023
	Unit	LOR													
PFAS															
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.18	0.22	20	0.18	0.18	0	0.56	0.95	**52**	0.56	0.78	**33**	*<0.01*
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.90	1.35	**40**	0.90	1.1	20	0.62	1.28	**69**	0.62	1.1	**56**	0.04
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	3.38	3.95	16	3.38	4.2	22	8.74	12.6	**36**	8.74	12	**31**	0.07
Sum of PFHxS and PFOS	µg/L	0.01	4.28	5.30	21	4.28	5.3	21	9.36	13.9	**39**	9.36	13	**33**	0.11
Sum of PFAS	µg/L	0.01	6.12	7.19	16	6.12	7.2	16	17.6	25.7	**37**	17.6	23	27	0.11
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	0.37	0.29	24	0.37	0.30	21	1.69	1.68	1	1.69	1.7	1	*<0.02*
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	0.41	0.48	16	0.41	0.43	5	1.13	2.42	**73**	1.13	2.0	**56**	*<0.02*
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	0.12	0.15	22	0.12	0.15	22	0.21	0.38	**58**	0.21	0.37	**55**	*<0.02*
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.02	*<0.1*	*<0.1*	0	*<0.1*	0.07	0	0.2	0.4	67	0.2	0.59	**99**	*<0.1*
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	0.14	0.12	15	0.14	0.1	33	0.79	0.91	14	0.79	0.97	20	*<0.02*
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	0.54	0.55	2	0.54	0.54	0	3.06	4.19	**31**	3.06	3.5	13	*<0.02*
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	0.08	0.08	0	0.08	0.07	13	0.49	0.70	**35**	0.49	0.53	8	*<0.02*
Perfluorononanoic acid (PFNA)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*
Perfluorodecanoic acid (PFDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.05*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.05*	0	*<0.02*
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0	*<0.02*
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0	*<0.05*
PFAS - (n:2) Fluorotelomer Sulfonic Acids															
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0	*<0.05*
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.01	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0	0.12	0.21	55	0.12	0.16	29	*<0.05*
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.02	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0	*<0.05*
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.02	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0	*<0.05*
PFAS - Perfluoroalkyl Sulfonamides															
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0	*<0.02*
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.1*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.1*	0	*<0.05*
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0	*<0.05*

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

Lab Report Number			ES2316196		ES2316196	323268		ES2316196	ES2316196		ES2316196	323268	
Field ID			0902_QC105_230509		0902_SW022_230509	0902_QC205_230509		0902_SW024_230509	0902_QC107_230509		0902_SW024_230509	0902_QC207_230509	
Matrix Type			Water		Water	Water		Water	Water		Water	Water	
Date			09 May 2023	RPD	09 May 2023	09 May 2023	RPD	09 May 2023	09 May 2023	RPD	09 May 2023	09 May 2023	RPD
	Unit	LOR											
PFAS													
Perfluorooctanoic acid (PFOA)	µg/L	0.01	*<0.01*	0	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	67	0.04	0.04	0	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.05	33	0.07	0.08	13	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0
Sum of PFHxS and PFOS	µg/L	0.01	0.07	44	0.11	0.11	0	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0
Sum of PFAS	µg/L	0.01	0.07	44	0.11	0.14	24	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0
PFAS - Perfluoroalkyl Sulfonic Acids													
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	*<0.02*	0	*<0.02*	0.01	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
PFAS - Perfluoroalkyl Carboxylic Acids													
Perfluorobutanoic acid (PFBA)	µg/L	0.02	*<0.1*	0	*<0.1*	*<0.02*	0	*<0.1*	*<0.1*	0	*<0.1*	*<0.02*	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	*<0.02*	0	*<0.02*	0.02	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluorodecanoic acid (PFDA)	µg/L	0.02	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	*<0.02*	0	*<0.02*	*<0.05*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.05*	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	*<0.02*	0	*<0.02*	*<0.1*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	*<0.05*	0	*<0.05*	*<0.5*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids													
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	*<0.05*	0	*<0.05*	*<0.01*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.01	*<0.05*	0	*<0.05*	*<0.01*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.02	*<0.05*	0	*<0.05*	*<0.02*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.02	*<0.05*	0	*<0.05*	*<0.02*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0
PFAS - Perfluoroalkyl Sulfonamides													
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	*<0.02*	0	*<0.02*	*<0.1*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	*<0.05*	0	*<0.05*	*<0.1*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.1*	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	*<0.05*	0	*<0.05*	*<0.5*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

Lab Report Number			ES2316196	ES2316196		ES2316196	323268		ES2316196	ES2316196		ES2316196	323268	
Field ID			0902_SW018_230510	0902_QC109_230510		0902_SW018_230510	0902_QC209_230510		0902_MW076_230510	0902_QC110_230510		0902_MW076_230510	0902_QC210_230510	
Matrix Type			Water	Water		Water	Water		Water	Water		Water	Water	
Date			10 May 2023	10 May 2023	RPD	10 May 2023	10 May 2023	RPD	10 May 2023	10 May 2023	RPD	10 May 2023	10 May 2023	RPD
	Unit	LOR												
PFAS														
Perfluorooctanoic acid (PFOA)	µg/L	0.01	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.02	0.02	0	0.02	0.02	0	*<0.01*	*<0.01*	0	*<0.01*	*<0.01*	0
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.01	0.01	0	0.01	0.02	67	0.03	0.03	0	0.03	0.04	29
Sum of PFHxS and PFOS	µg/L	0.01	0.03	0.03	0	0.03	0.04	29	0.03	0.03	0	0.03	0.04	29
Sum of PFAS	µg/L	0.01	0.03	0.03	0	0.03	0.04	29	0.03	0.03	0	0.03	0.05	50
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.02	*<0.1*	*<0.1*	0	*<0.1*	*<0.02*	0	*<0.1*	*<0.1*	0	*<0.1*	*<0.02*	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluorodecanoic acid (PFDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.05*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.05*	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.01	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.02	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.02	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0
PFAS - Perfluoroalkyl Sulfonamides														
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.1*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.1*	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

Lab Report Number			ES2316196	ES2316196		ES2316196	323268		ES2316196	ES2316196		ES2316196	323268	
Field ID			0902_MW079_230510	0902_QC111_230510		0902_MW079_230510	0902_QC211_230510		0902_MW143_230510	0902_QC112_230510		0902_MW143_230510	0902_QC212_230510	
Matrix Type			Water	Water		Water	Water		Water	Water		Water	Water	
Date			10 May 2023	10 May 2023	RPD	10 May 2023	10 May 2023	RPD	10 May 2023	10 May 2023	RPD	10 May 2023	10 May 2023	RPD
	Unit	LOR												
PFAS														
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.05	0.06	18	0.05	0.05	0	0.01	0.01	0	0.01	0.01	0
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	1.04	1.52	**38**	1.04	0.93	11	0.58	0.76	27	0.58	0.65	11
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	1.39	1.62	15	1.39	1.7	20	0.11	0.14	24	0.11	0.17	43
Sum of PFHxS and PFOS	µg/L	0.01	2.43	3.14	25	2.43	2.7	11	0.69	0.90	26	0.69	0.81	16
Sum of PFAS	µg/L	0.01	3.06	3.93	25	3.06	3.4	11	0.73	1.01	**32**	0.73	0.93	24
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	0.14	0.18	25	0.14	0.16	13	*<0.02*	0.04	67	*<0.02*	0.03	40
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	0.15	0.19	24	0.15	0.18	18	*<0.02*	0.03	40	*<0.02*	0.02	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	0.04	0.05	22	0.04	0.04	0	*<0.02*	*<0.02*	0	*<0.02*	0.01	0
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	µg/L	0.02	*<0.1*	*<0.1*	0	*<0.1*	0.06	0	*<0.1*	*<0.1*	0	*<0.1*	*<0.02*	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	0.04	0.06	40	0.04	0.06	40	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	0.19	0.22	15	0.19	0.22	15	0.03	0.03	0	0.03	0.04	29
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	0.02	0.03	40	0.02	0.03	40	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluorodecanoic acid (PFDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.05*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.05*	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.01	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.02	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.02	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0
PFAS - Perfluoroalkyl Sulfonamides														
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.1*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.1*	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D1 - Water Duplicate RPDs

	Lab Report Number		ES2316196	ES2316196		ES2316196	323268	
	Field ID		0902_MW069_230511	0902_QC113_230511		0902_MW069_230511	0902_QC213_230511	
	Matrix Type		Water	Water		Water	Water	
	Date		11 May 2023	11 May 2023	RPD	11 May 2023	11 May 2023	RPD
	Unit	LOR						
PFAS								
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.02	0.03	40	0.02	0.03	40
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	0.36	0.46	24	0.36	0.47	27
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	0.24	0.26	8	0.24	0.36	**40**
Sum of PFHxS and PFOS	µg/L	0.01	0.60	0.72	18	0.60	0.84	**33**
Sum of PFAS	µg/L	0.01	0.83	0.91	9	0.83	1.1	28
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01	0.08	0.07	13	0.08	0.08	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	0.03	0.03	0	0.03	0.04	29
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	0.02	*<0.02*	0	0.02	0.01	67
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	µg/L	0.02	*<0.1*	*<0.1*	0	*<0.1*	0.02	0
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	0.03	0.02	40	0.03	0.03	0
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	0.05	0.04	22	0.05	0.06	18
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	0.01	0
Perfluorononanoic acid (PFNA)	µg/L	0.01	*<0.02*	*<0.02*	0	*<0.02*	*<0.01*	0
Perfluorodecanoic acid (PFDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.05*	0
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.01	*<0.05*	*<0.05*	0	*<0.05*	*<0.01*	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.02	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.02	*<0.05*	*<0.05*	0	*<0.05*	*<0.02*	0
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.1*	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.05*	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.1*	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	*<0.02*	*<0.02*	0	*<0.02*	*<0.02*	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	*<0.05*	*<0.05*	0	*<0.05*	*<0.5*	0

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D2 - Sediment Duplicate RPDs

Lab Report Number			ES2316196	ES2316196		ES2316196	323268		ES2316196	ES2316196		ES2316196	323268	
Field ID			0902_SD001_230508	0902_QC101_230508		0902_SD001_230508	0902_QC201_230508		0902_SD035_230509	0902_QC106_230509		0902_SD035_230509	0902_QC206_230509	
Matrix Type			Soil	Soil		Soil	Soil		Soil	Soil		Soil	Soil	
Date			08 May 2023	08 May 2023	RPD	08 May 2023	08 May 2023	RPD	09 May 2023	09 May 2023	RPD	09 May 2023	09 May 2023	RPD
	Unit	LOR												
PFAS														
Perfluorooctanoic acid (PFOA)	mg/kg	0.0001	0.0037	0.103	**186**	0.0037	0.017	**129**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0001	0.599	13.9	**183**	0.599	1.7	**96**	0.0008	0.0006	29	0.0008	0.0007	13
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0001	0.0032	0.0995	**188**	0.0032	0.017	**137**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Sum of PFHxS and PFOS	mg/kg	0.0001	0.602	14.0	**184**	0.602	1.8	**100**	0.0008	0.0006	29	0.0008	0.0007	13
Sum of PFAS	mg/kg	0.0001	1.47	42.3	**187**	1.47	5.6	**117**	0.0008	0.0006	29	0.0008	0.0007	13
PFAS - Perfluoroalkyl Sulfonic Acids														
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0001	0.0004	0.0043	**166**	0.0004	0.0011	**93**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0001	0.0003	0.0068	**183**	0.0003	0.0013	**125**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0001	0.0025	0.0517	**182**	0.0025	0.0057	**78**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluorodecane sulfonic acid (PFDS)	mg/kg	0.0002	0.0214	0.477	**183**	0.0214	0.071	**107**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0002*	0
PFAS - Perfluoroalkyl Carboxylic Acids														
Perfluorobutanoic acid (PFBA)	mg/kg	0.0002	*<0.001*	*<0.012*	0	*<0.001*	0.0020	67	*<0.001*	*<0.001*	0	*<0.001*	*<0.0002*	0
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	0.0016	0.0122	**154**	0.0016	0.0036	**77**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0002*	0
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0001	0.0020	0.0257	**171**	0.0020	0.0058	**97**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0001	0.0015	0.0324	**182**	0.0015	0.0054	**113**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluorononanoic acid (PFNA)	mg/kg	0.0001	0.0230	0.597	**185**	0.0230	0.063	**93**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	0.137	3.85	**186**	0.137	0.46	**108**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0005*	0
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	0.199	8.25	**191**	0.199	0.85	**124**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0005*	0
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	0.193	6.90	**189**	0.193	1.1	**140**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0005*	0
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	0.0419	1.50	**189**	0.0419	0.25	**143**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0005*	0
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	0.0285	0.679	**184**	0.0285	0.19	**148**	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.005*	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids														
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0001	*<0.0005*	*<0.0025*	0	*<0.0005*	*<0.0001*	0	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.0001*	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	mg/kg	0.0001	0.0039	0.114	**187**	0.0039	0.027	**150**	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.0001*	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0002	0.174	4.99	**187**	0.174	0.71	**121**	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.0002*	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0002	0.0254	0.562	**183**	0.0254	0.056	**75**	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.0002*	0
PFAS - Perfluoroalkyl Sulfonamides														
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	0.0065	0.149	**183**	0.0065	0.017	**89**	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.001*	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	*<0.0005*	*<0.0062*	0	*<0.0005*	*<0.001*	0	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.001*	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	*<0.0002*	*<0.0025*	0	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0002*	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	mg/kg	0.0005	*<0.0005*	*<0.0062*	0	*<0.0005*	*<0.001*	0	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.001*	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	*<0.0005*	*<0.0062*	0	*<0.0005*	*<0.001*	0	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.001*	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	*<0.0002*	*<0.0025*	0	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0002*	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	*<0.0005*	*<0.0062*	0	*<0.0005*	*<0.005*	0	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.005*	0

Notes
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High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D2 - Sediment Duplicate RPDs

	Lab Report Number		ES2316196	ES2316196		ES2316196	323268	
	Field ID		0902_SD030_230510	0902_QC108_230510		0902_SD030_230510	0902_QC208_230510	
	Matrix Type		Soil	Soil		Soil	Soil	
	Date		10 May 2023	10 May 2023	RPD	10 May 2023	10 May 2023	RPD
	Unit	LOR						
PFAS								
Perfluorooctanoic acid (PFOA)	mg/kg	0.0001	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluorooctane sulfonic acid (PFOS)	mg/kg	0.0001	*<0.0002*	*<0.0002*	0	*<0.0002*	0.0001	0
Perfluorohexane sulfonic acid (PFHxS)	mg/kg	0.0001	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Sum of PFHxS and PFOS	mg/kg	0.0001	*<0.0002*	*<0.0002*	0	*<0.0002*	0.0001	0
Sum of PFAS	mg/kg	0.0001	*<0.0002*	*<0.0002*	0	*<0.0002*	0.0001	0
PFAS - Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	mg/kg	0.0001	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluoropentane sulfonic acid (PFPeS)	mg/kg	0.0001	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluoroheptane sulfonic acid (PFHpS)	mg/kg	0.0001	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluorodecane sulfonic acid (PFDS)	mg/kg	0.0002	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0002*	0
PFAS - Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	mg/kg	0.0002	*<0.001*	*<0.001*	0	*<0.001*	*<0.0002*	0
Perfluoropentanoic acid (PFPeA)	mg/kg	0.0002	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0002*	0
Perfluorohexanoic acid (PFHxA)	mg/kg	0.0001	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluoroheptanoic acid (PFHpA)	mg/kg	0.0001	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluorononanoic acid (PFNA)	mg/kg	0.0001	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0001*	0
Perfluorodecanoic acid (PFDA)	mg/kg	0.0002	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0005*	0
Perfluoroundecanoic acid (PFUnDA)	mg/kg	0.0002	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0005*	0
Perfluorododecanoic acid (PFDoDA)	mg/kg	0.0002	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0005*	0
Perfluorotridecanoic acid (PFTrDA)	mg/kg	0.0002	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0005*	0
Perfluorotetradecanoic acid (PFTeDA)	mg/kg	0.0005	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.005*	0
PFAS - (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	mg/kg	0.0001	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.0001*	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	mg/kg	0.0001	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.0001*	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	mg/kg	0.0002	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.0002*	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	mg/kg	0.0002	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.0002*	0
PFAS - Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	mg/kg	0.0002	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.001*	0
N-Methyl perfluorooctane sulfonamide (MeFOSA)	mg/kg	0.0005	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.001*	0
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	mg/kg	0.0002	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0002*	0
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	mg/kg	0.0005	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.001*	0
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	mg/kg	0.0005	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.001*	0
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	mg/kg	0.0002	*<0.0002*	*<0.0002*	0	*<0.0002*	*<0.0002*	0
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	mg/kg	0.0005	*<0.0005*	*<0.0005*	0	*<0.0005*	*<0.005*	0

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

Table D3 - Rinsate Blank Analytical Results

	Lab Report Number		ES2316196	ES2316196	ES2316196	ES2316196	ES2316196	ES2316196	ES2319454
	Matrix Type		Water	Water	Water	Water	Water	Water	Water
	Date		08 May 2023	09 May 2023	10 May 2023	11 May 2023	12 May 2023	15 May 2023	09 Jun 2023
	Unit	LOR							
PFAS									
Perfluorooctanoic acid (PFOA)	µg/L	0.01	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*
Sum of PFHxS and PFOS	µg/L	0.01	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*
Sum of PFAS	µg/L	0.01	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*
PFAS - Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
PFAS - Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	µg/L	0.1	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*	*<0.1*
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
Perfluorononanoic acid (PFNA)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
Perfluorodecanoic acid (PFDA)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*
PFAS - (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*
PFAS - Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*

Notes
LOR = Limit of Reporting

Appendix E

Laboratory Certificates

CERTIFICATE OF ANALYSIS

Work Order	: **ES2316196**	Page	: 1 of 63
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Contact	: Sepan Mahamad
Address	: PO BOX Q410 QVB POST OFFICE SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP_23	Date Samples Received	: 16-May-2023 14:50
Order number	: 60612562_5.1	Date Analysis Commenced	: 17-May-2023
C-O-C number	: 51920	Issue Date	: 26-May-2023 19:07
Sampler	: JACK RAWSTHORNE, NICOLA TOMLIN		
Site	: 0902		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 142		
No. of samples analysed	: 142		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231X: Particular samples required dilution due to the presence of high level contaminants. LOR values have been adjusted accordingly.
- Amendment (DD/MM/YYYY):This report has been amended following a request from Jessica Roy on 26/05/23 to update sample times on sample #15, 26, 42, 62, 116 & 124 as well as sampler details. All analytical results are as per the previous report.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW001_230511	0902_MW002_230511	0902_MW004_230511	0902_MW005_230511	0902_MW007_230515
				Sampling date / time	11-May-2023 14:44	11-May-2023 11:19	11-May-2023 10:32	11-May-2023 14:17	15-May-2023 12:33
Compound	CAS Number	LOR	Unit		ES2316196-001	ES2316196-002	ES2316196-003	ES2316196-004	ES2316196-005
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.03**	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.10**	<0.01	<0.01	**0.03**	**0.03**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.03**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW001_230511	0902_MW002_230511	0902_MW004_230511	0902_MW005_230511	0902_MW007_230515
				Sampling date / time	11-May-2023 14:44	11-May-2023 11:19	11-May-2023 10:32	11-May-2023 14:17	15-May-2023 12:33
Compound	CAS Number	LOR	Unit		ES2316196-001	ES2316196-002	ES2316196-003	ES2316196-004	ES2316196-005
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.13**	<0.01	<0.01	**0.06**	**0.03**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.10**	<0.01	<0.01	**0.06**	**0.03**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.13**	<0.01	<0.01	**0.06**	**0.03**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**97.4**	**93.4**	**100**	**99.5**	**102**
13C8-PFOA	----	0.02	%		**105**	**105**	**103**	**100**	**103**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW008_230511	0902_MW009_230511	0902_MW010_230511	0902_MW012_230511	0902_MW013_230511
				Sampling date / time	12-May-2023 11:36	12-May-2023 11:46	12-May-2023 11:58	11-May-2023 16:01	11-May-2023 12:28
Compound	CAS Number	LOR	Unit		ES2316196-006	ES2316196-007	ES2316196-008	ES2316196-009	ES2316196-010
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.09**	<0.02	**0.02**	**0.41**	**0.47**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.05**	<0.02	<0.02	**0.28**	**0.33**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.20**	**0.02**	**0.13**	**1.53**	**2.15**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	**0.02**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.08**	**0.06**	**0.12**	**0.24**	**0.10**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	**0.1**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.05**	**0.06**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.05**	<0.02	**0.03**	**0.20**	**0.31**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.03**	**0.02**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.01**	**0.03**	**0.03**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW008_230511	0902_MW009_230511	0902_MW010_230511	0902_MW012_230511	0902_MW013_230511
				Sampling date / time	12-May-2023 11:36	12-May-2023 11:46	12-May-2023 11:58	11-May-2023 16:01	11-May-2023 12:28
Compound	CAS Number	LOR	Unit		ES2316196-006	ES2316196-007	ES2316196-008	ES2316196-009	ES2316196-010
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.47**	**0.08**	**0.31**	**2.79**	**3.59**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.28**	**0.08**	**0.25**	**1.77**	**2.25**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.42**	**0.08**	**0.31**	**2.49**	**3.24**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**100**	**101**	**100**	**99.7**	**98.6**
13C8-PFOA	----	0.02	%		**96.8**	**103**	**103**	**103**	**104**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW014_230511	0902_MW015_23011	0902_MW016_230511	0902_MW017_230511	0902_MW020_230508
				Sampling date / time	11-May-2023 13:05	11-May-2023 13:15	11-May-2023 09:56	11-May-2023 12:52	08-May-2023 16:15
Compound	CAS Number	LOR	Unit		ES2316196-011	ES2316196-012	ES2316196-013	ES2316196-014	ES2316196-015
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.42**	**0.63**	<0.02	**0.33**	**0.46**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.32**	**0.56**	<0.02	**0.27**	**0.37**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**1.59**	**3.94**	<0.01	**2.02**	**1.74**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.04**	**0.22**	<0.02	**0.05**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.14**	**4.34**	<0.01	**0.73**	**0.05**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.1**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.07**	**0.12**	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.34**	**0.53**	<0.02	<0.02	**0.04**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.03**	**0.07**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.03**	**0.17**	<0.01	**0.02**	**0.01**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW014_230511	0902_MW015_23011	0902_MW016_230511	0902_MW017_230511	0902_MW020_230508
				Sampling date / time	11-May-2023 13:05	11-May-2023 13:15	11-May-2023 09:56	11-May-2023 12:52	08-May-2023 16:15
Compound	CAS Number	LOR	Unit		ES2316196-011	ES2316196-012	ES2316196-013	ES2316196-014	ES2316196-015
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**2.98**	**10.7**	<0.01	**3.42**	**2.67**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.73**	**8.28**	<0.01	**2.75**	**1.79**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**2.62**	**9.90**	<0.01	**3.10**	**2.30**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**96.4**	**98.5**	**102**	**98.0**	**93.1**
13C8-PFOA	----	0.02	%		**103**	**103**	**101**	**106**	**100**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW021_230508	0902_MW022_230508	0902_MW023_230508	0902_MW024_230512	0902_MW025_230509
				Sampling date / time	08-May-2023 09:28	08-May-2023 10:40	08-May-2023 11:08	12-May-2023 07:57	09-May-2023 10:04
Compound	CAS Number	LOR	Unit		ES2316196-016	ES2316196-017	ES2316196-018	ES2316196-019	ES2316196-020
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.13**	**1.30**	**0.04**	**0.29**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.14**	**1.18**	**0.02**	**0.22**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**2.66**	**10.1**	**0.09**	**0.48**	**0.04**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.12**	**0.44**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**4.36**	**12.0**	**0.04**	**0.03**	**0.11**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	**0.02**	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**0.1**	**0.2**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.17**	**0.69**	<0.02	**0.03**	**0.04**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.44**	**1.61**	<0.02	**0.13**	**0.04**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.13**	**0.39**	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.38**	**0.48**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		**0.04**	**0.13**	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	**0.02**	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW021_230508	0902_MW022_230508	0902_MW023_230508	0902_MW024_230512	0902_MW025_230509
				Sampling date / time	08-May-2023 09:28	08-May-2023 10:40	08-May-2023 11:08	12-May-2023 07:57	09-May-2023 10:04
Compound	CAS Number	LOR	Unit		ES2316196-016	ES2316196-017	ES2316196-018	ES2316196-019	ES2316196-020
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**8.67**	**28.6**	**0.19**	**1.18**	**0.23**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**7.02**	**22.1**	**0.13**	**0.51**	**0.15**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**8.37**	**26.8**	**0.17**	**0.96**	**0.23**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**97.0**	**95.7**	**102**	**102**	**100**
13C8-PFOA	----	0.02	%		**102**	**102**	**105**	**103**	**109**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW026_230512	0902_MW028_230512	0902_MW030_230508	0902_MW032_230515	0902_MW033_230515
				Sampling date / time	12-May-2023 08:22	12-May-2023 10:05	08-May-2023 13:34	15-May-2023 15:20	15-May-2023 15:11
Compound	CAS Number	LOR	Unit		ES2316196-021	ES2316196-022	ES2316196-023	ES2316196-024	ES2316196-025
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.44**	**2.66**	**0.13**	**1.87**	**0.10**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.50**	**2.69**	**0.11**	**1.80**	**0.09**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**3.31**	**11.8**	**0.76**	**11.6**	**0.85**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.13**	**0.05**	<0.02	**0.33**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.52**	**0.07**	**0.27**	**3.11**	**0.08**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.6**	<0.1	**0.6**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.08**	**0.90**	**0.03**	**0.38**	**0.04**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.41**	**3.75**	**0.12**	**2.10**	**0.10**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.07**	**0.67**	**0.02**	**0.22**	**0.02**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.14**	**0.23**	**0.05**	**0.35**	**0.02**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW026_230512	0902_MW028_230512	0902_MW030_230508	0902_MW032_230515	0902_MW033_230515
				Sampling date / time	12-May-2023 08:22	12-May-2023 10:05	08-May-2023 13:34	15-May-2023 15:20	15-May-2023 15:11
Compound	CAS Number	LOR	Unit		ES2316196-021	ES2316196-022	ES2316196-023	ES2316196-024	ES2316196-025
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**5.60**	**23.4**	**1.49**	**22.4**	**1.30**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**3.83**	**11.9**	**1.03**	**14.7**	**0.93**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**4.97**	**20.7**	**1.38**	**20.2**	**1.21**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**101**	**105**	**98.9**	**101**	**106**
13C8-PFOA	----	0.02	%		**104**	**104**	**107**	**100**	**106**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW034_230515	0902_MW036_230508	0902_MW040_230511	0902_MW041_230515	0902_MW042_230511
				Sampling date / time	15-May-2023 11:00	08-May-2023 13:01	12-May-2023 10:22	15-May-2023 12:09	12-May-2023 10:49
Compound	CAS Number	LOR	Unit		ES2316196-026	ES2316196-027	ES2316196-028	ES2316196-029	ES2316196-030
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.81**	**0.12**	**2.44**	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.81**	**0.08**	**2.32**	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**4.20**	**0.41**	**22.3**	**0.03**	**0.06**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.17**	<0.02	**1.06**	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.43**	**0.03**	**54.4**	**0.04**	**0.10**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	**0.40**	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**0.2**	<0.1	**0.9**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.18**	<0.02	**1.51**	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.91**	**0.06**	**5.01**	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.13**	<0.02	**0.75**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.16**	<0.01	**1.29**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	**0.09**	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	**0.02**	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	**0.18**	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW034_230515	0902_MW036_230508	0902_MW040_230511	0902_MW041_230515	0902_MW042_230511
				Sampling date / time	15-May-2023 11:00	08-May-2023 13:01	12-May-2023 10:22	15-May-2023 12:09	12-May-2023 10:49
Compound	CAS Number	LOR	Unit		ES2316196-026	ES2316196-027	ES2316196-028	ES2316196-029	ES2316196-030
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	**0.05**	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**8.00**	**0.70**	**92.7**	**0.07**	**0.16**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**4.63**	**0.44**	**76.7**	**0.07**	**0.16**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**7.02**	**0.62**	**88.6**	**0.07**	**0.16**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**111**	**97.0**	**102**	**105**	**107**
13C8-PFOA	----	0.02	%		**103**	**101**	**102**	**103**	**106**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW043_230515	0902_MW045_230509	0902_MW046_230509	0902_MW047_230515	0902_MW048_230511
				Sampling date / time	15-May-2023 12:22	09-May-2023 10:33	09-May-2023 10:22	15-May-2023 12:45	12-May-2023 12:16
Compound	CAS Number	LOR	Unit		ES2316196-031	ES2316196-032	ES2316196-033	ES2316196-034	ES2316196-035
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	**0.74**	**0.12**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.77**	**0.12**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.02**	**0.06**	**0.05**	**3.63**	**0.34**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.18**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.11**	**0.04**	<0.01	**2.23**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	**0.16**	**0.04**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	**0.56**	**0.20**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.10**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.15**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW043_230515	0902_MW045_230509	0902_MW046_230509	0902_MW047_230515	0902_MW048_230511
				Sampling date / time	15-May-2023 12:22	09-May-2023 10:33	09-May-2023 10:22	15-May-2023 12:45	12-May-2023 12:16
Compound	CAS Number	LOR	Unit		ES2316196-031	ES2316196-032	ES2316196-033	ES2316196-034	ES2316196-035
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.13**	**0.10**	**0.05**	**8.52**	**0.82**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.13**	**0.10**	**0.05**	**5.86**	**0.34**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.13**	**0.10**	**0.05**	**7.57**	**0.70**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**104**	**101**	**95.5**	**102**	**103**
13C8-PFOA	----	0.02	%		**93.9**	**104**	**103**	**92.4**	**107**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW050_230515	0902_MW051_230515	0902_MW052_230515	0902_MW053_230509	0902_MW054_230509
				Sampling date / time	15-May-2023 13:07	15-May-2023 13:01	15-May-2023 12:54	09-May-2023 15:48	09-May-2023 16:49
Compound	CAS Number	LOR	Unit		ES2316196-036	ES2316196-037	ES2316196-038	ES2316196-039	ES2316196-040
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.21**	**71.0**	**1.69**	**3.14**	**0.17**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.20**	**103**	**1.66**	**2.39**	**0.08**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**1.53**	**850**	**6.28**	**15.3**	**0.42**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.17**	**97.4**	**0.30**	**0.07**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**5.04**	**530**	**2.11**	**0.06**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.05	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**23.5**	**0.3**	**0.4**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.16**	**30.4**	**0.54**	**0.68**	**0.03**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.36**	**120**	**2.33**	**2.88**	**0.07**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.07**	**17.5**	**0.17**	**0.56**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.14**	**60.9**	**0.22**	**0.56**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	**0.40**	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.05	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.05	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.05	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.05	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.12	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		**0.02**	<0.05	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.12	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.12	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW050_230515	0902_MW051_230515	0902_MW052_230515	0902_MW053_230509	0902_MW054_230509
				Sampling date / time	15-May-2023 13:07	15-May-2023 13:01	15-May-2023 12:54	09-May-2023 15:48	09-May-2023 16:49
Compound	CAS Number	LOR	Unit		ES2316196-036	ES2316196-037	ES2316196-038	ES2316196-039	ES2316196-040
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.12	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.12	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.05	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.05	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	**0.20**	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**7.90**	**1900**	**15.6**	**26.0**	**0.77**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**6.57**	**1380**	**8.39**	**15.4**	**0.42**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**7.51**	**1700**	**13.6**	**23.6**	**0.69**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**120**	**107**	**97.2**	**78.8**	**72.6**
13C8-PFOA	----	0.02	%		**118**	**113**	**99.4**	**87.1**	**85.5**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW056_230509	0902_MW057_230509	0902_MW058_230509	0902_MW059_230509	0902_MW060_230509
				Sampling date / time	09-May-2023 16:10	09-May-2023 17:00	09-May-2023 16:38	09-May-2023 16:19	09-May-2023 12:16
Compound	CAS Number	LOR	Unit		ES2316196-041	ES2316196-042	ES2316196-043	ES2316196-044	ES2316196-045
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.13**	**3.47**	**4.54**	**0.10**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.07**	**2.39**	**2.64**	**0.10**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	**0.63**	**11.7**	**5.98**	**0.87**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.02**	**0.06**	<0.02	**0.03**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.12**	**0.02**	**0.06**	**0.21**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**0.1**	**0.5**	**0.5**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.10**	**1.11**	**1.08**	**0.04**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.18**	**4.82**	**4.49**	**0.16**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.04**	**1.03**	**0.58**	**0.02**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.06**	**0.61**	**0.03**	**0.04**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW056_230509	0902_MW057_230509	0902_MW058_230509	0902_MW059_230509	0902_MW060_230509
				Sampling date / time	09-May-2023 16:10	09-May-2023 17:00	09-May-2023 16:38	09-May-2023 16:19	09-May-2023 12:16
Compound	CAS Number	LOR	Unit		ES2316196-041	ES2316196-042	ES2316196-043	ES2316196-044	ES2316196-045
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	**1.45**	**25.7**	**19.9**	**1.57**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	**0.75**	**11.7**	**6.04**	**1.08**
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	**1.36**	**23.3**	**17.3**	**1.44**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**73.5**	**77.5**	**80.6**	**74.2**	**69.8**
13C8-PFOA	----	0.02	%		**86.3**	**84.8**	**83.4**	**83.2**	**87.1**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW061_230509	0902_MW062_230509	0902_MW063_230509	0902_MW064_230509	0902_MW065_230509
				Sampling date / time	09-May-2023 12:08	09-May-2023 09:17	09-May-2023 09:43	09-May-2023 11:49	09-May-2023 11:30
Compound	CAS Number	LOR	Unit		ES2316196-046	ES2316196-047	ES2316196-048	ES2316196-049	ES2316196-050
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.07**	**0.05**	**1.69**	**0.09**	**0.08**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.04**	<0.02	**1.13**	**0.06**	**0.05**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.39**	**0.23**	**8.74**	**0.43**	**0.36**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.21**	**0.02**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.21**	**0.58**	**0.62**	**0.13**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	**0.2**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.08**	**0.19**	**0.79**	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.10**	**0.13**	**3.06**	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.03**	**0.03**	**0.49**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.05**	**0.01**	**0.56**	**0.01**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW061_230509	0902_MW062_230509	0902_MW063_230509	0902_MW064_230509	0902_MW065_230509
				Sampling date / time	09-May-2023 12:08	09-May-2023 09:17	09-May-2023 09:43	09-May-2023 11:49	09-May-2023 11:30
Compound	CAS Number	LOR	Unit		ES2316196-046	ES2316196-047	ES2316196-048	ES2316196-049	ES2316196-050
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	**0.12**	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.97**	**1.22**	**17.6**	**0.74**	**0.49**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.60**	**0.81**	**9.36**	**0.56**	**0.36**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.93**	**1.22**	**16.3**	**0.66**	**0.44**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**76.3**	**75.5**	**75.4**	**74.5**	**71.9**
13C8-PFOA	----	0.02	%		**86.2**	**84.2**	**86.5**	**80.8**	**83.6**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW066_230509	0902_MW067_230509	0902_MW068_230509	0902_MW069_230511	0902_MW070_230509
				Sampling date / time	09-May-2023 11:09	09-May-2023 09:00	09-May-2023 08:10	11-May-2023 06:59	09-May-2023 08:31
Compound	CAS Number	LOR	Unit		ES2316196-051	ES2316196-052	ES2316196-053	ES2316196-054	ES2316196-055
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.37**	**0.08**	**0.15**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	**0.41**	**0.03**	**0.05**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.04**	**0.03**	**3.38**	**0.24**	**0.47**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.02**	<0.02	**0.12**	**0.02**	**0.03**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.02**	<0.01	**0.90**	**0.36**	**0.75**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.14**	**0.03**	**0.12**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.54**	**0.05**	**0.13**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.08**	<0.02	**0.06**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.18**	**0.02**	**0.07**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW066_230509	0902_MW067_230509	0902_MW068_230509	0902_MW069_230511	0902_MW070_230509
				Sampling date / time	09-May-2023 11:09	09-May-2023 09:00	09-May-2023 08:10	11-May-2023 06:59	09-May-2023 08:31
Compound	CAS Number	LOR	Unit		ES2316196-051	ES2316196-052	ES2316196-053	ES2316196-054	ES2316196-055
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.08**	**0.03**	**6.12**	**0.83**	**1.83**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.06**	**0.03**	**4.28**	**0.60**	**1.22**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.06**	**0.03**	**5.59**	**0.78**	**1.75**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**79.2**	**78.0**	**69.3**	**72.5**	**69.2**
13C8-PFOA	----	0.02	%		**86.3**	**86.3**	**83.7**	**84.4**	**84.6**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW071_230509	0902_MW072_230515	0902_MW073_230515	0902_MW074_230515	0902_MW075_230508
				Sampling date / time	09-May-2023 08:45	15-May-2023 14:37	15-May-2023 14:48	15-May-2023 10:45	08-May-2023 12:28
Compound	CAS Number	LOR	Unit		ES2316196-056	ES2316196-057	ES2316196-058	ES2316196-059	ES2316196-060
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.10**	**8.79**	**4.56**	**8.61**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.03**	**8.40**	**5.58**	**9.90**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.30**	**81.8**	**43.0**	**54.6**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.03**	**3.77**	**1.73**	**1.33**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.73**	**48.3**	**5.37**	**10.6**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	**1.6**	**5.3**	**6.5**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.10**	**2.90**	**2.00**	**2.63**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.09**	**11.7**	**10.2**	**13.0**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**0.03**	**1.35**	**1.02**	**1.45**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.04**	**3.64**	**2.42**	**1.94**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW071_230509	0902_MW072_230515	0902_MW073_230515	0902_MW074_230515	0902_MW075_230508
				Sampling date / time	09-May-2023 08:45	15-May-2023 14:37	15-May-2023 14:48	15-May-2023 10:45	08-May-2023 12:28
Compound	CAS Number	LOR	Unit		ES2316196-056	ES2316196-057	ES2316196-058	ES2316196-059	ES2316196-060
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.45**	**172**	**81.2**	**110**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**1.03**	**130**	**48.4**	**65.2**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		**1.39**	**160**	**73.9**	**99.3**	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**68.4**	**71.0**	**107**	**105**	**109**
13C8-PFOA	----	0.02	%		**82.7**	**83.6**	**108**	**103**	**110**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW076_230510	0902_MW077_230510	0902_MW078_230511	0902_MW079_230510	0902_MW080_230508
				Sampling date / time	10-May-2023 11:56	10-May-2023 12:21	11-May-2023 07:46	10-May-2023 13:53	08-May-2023 16:33
Compound	CAS Number	LOR	Unit		ES2316196-061	ES2316196-062	ES2316196-063	ES2316196-064	ES2316196-065
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.04**	**0.14**	**0.53**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	**0.04**	**0.15**	**0.64**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.03**	**0.02**	**0.30**	**1.39**	**3.62**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	**0.04**	**0.27**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**0.04**	**0.03**	**1.04**	**2.87**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.04**	**0.04**	**0.17**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.08**	**0.19**	**0.59**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	**0.02**	**0.08**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	**0.05**	**0.17**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW076_230510	0902_MW077_230510	0902_MW078_230511	0902_MW079_230510	0902_MW080_230508
				Sampling date / time	10-May-2023 11:56	10-May-2023 12:21	11-May-2023 07:46	10-May-2023 13:53	08-May-2023 16:33
Compound	CAS Number	LOR	Unit		ES2316196-061	ES2316196-062	ES2316196-063	ES2316196-064	ES2316196-065
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.03**	**0.06**	**0.53**	**3.06**	**8.94**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.03**	**0.06**	**0.33**	**2.43**	**6.49**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.03**	**0.06**	**0.49**	**2.87**	**8.03**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**103**	**108**	**112**	**112**	**107**
13C8-PFOA	----	0.02	%		**111**	**106**	**108**	**103**	**105**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW081_230509	0902_MW082_230509	0902_MW091_230510	0902_MW092_230510	0902_MW106_230508
				Sampling date / time	09-May-2023 13:24	09-May-2023 14:11	10-May-2023 09:11	10-May-2023 09:30	08-May-2023 16:44
Compound	CAS Number	LOR	Unit		ES2316196-066	ES2316196-067	ES2316196-068	ES2316196-069	ES2316196-070
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.18**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.22**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.02**	<0.01	**0.03**	<0.01	**1.28**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.09**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.04**	<0.01	**0.04**	<0.01	**0.86**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.05**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.17**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	**0.02**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.05**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW081_230509	0902_MW082_230509	0902_MW091_230510	0902_MW092_230510	0902_MW106_230508
				Sampling date / time	09-May-2023 13:24	09-May-2023 14:11	10-May-2023 09:11	10-May-2023 09:30	08-May-2023 16:44
Compound	CAS Number	LOR	Unit		ES2316196-066	ES2316196-067	ES2316196-068	ES2316196-069	ES2316196-070
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.06**	<0.01	**0.07**	<0.01	**2.92**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.06**	<0.01	**0.07**	<0.01	**2.14**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.06**	<0.01	**0.07**	<0.01	**2.61**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**104**	**112**	**108**	**106**	**106**
13C8-PFOA	----	0.02	%		**105**	**104**	**108**	**107**	**108**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0902_MW107D_230508	0902_MW107I_230509	0902_MW108_230508	0902_MW109_230508	0902_MW110_230508
			Sampling date / time	08-May-2023 15:08	09-May-2023 16:29	08-May-2023 13:25	08-May-2023 10:24	08-May-2023 11:28
Compound	CAS Number	LOR	Unit	ES2316196-071	ES2316196-072	ES2316196-073	ES2316196-074	ES2316196-075
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**0.86**	**10.8**	**0.14**	**0.32**	**0.33**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**0.95**	**11.7**	**0.12**	**0.38**	**0.39**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**5.20**	**61.8**	**0.50**	**2.44**	**1.96**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	**0.42**	**3.23**	<0.02	**0.14**	**0.04**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**4.53**	**70.2**	**0.10**	**3.62**	**0.15**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	**0.2**	**3.5**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	**0.44**	**5.36**	**0.03**	**0.12**	**0.09**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**1.65**	**20.1**	**0.12**	**0.50**	**0.42**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	**0.29**	**3.84**	<0.02	**0.09**	**0.05**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	**0.63**	**6.91**	**0.01**	**0.17**	**0.06**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	**0.05**	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW107D_230508	0902_MW107I_230509	0902_MW108_230508	0902_MW109_230508	0902_MW110_230508
				Sampling date / time	08-May-2023 15:08	09-May-2023 16:29	08-May-2023 13:25	08-May-2023 10:24	08-May-2023 11:28
Compound	CAS Number	LOR	Unit		ES2316196-071	ES2316196-072	ES2316196-073	ES2316196-074	ES2316196-075
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**15.2**	**197**	**1.02**	**7.78**	**3.49**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**9.73**	**132**	**0.60**	**6.06**	**2.11**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**13.8**	**182**	**0.90**	**7.26**	**3.06**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**109**	**76.8**	**96.3**	**99.4**	**91.6**
13C8-PFOA	----	0.02	%		**107**	**102**	**98.5**	**97.1**	**97.2**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW111_230511	0902_MW112_230511	0902_MW113_230511	0902_MW114_230511	0902_MW143_230510
				Sampling date / time	11-May-2023 10:18	11-May-2023 10:36	11-May-2023 11:28	11-May-2023 14:36	10-May-2023 14:27
Compound	CAS Number	LOR	Unit		ES2316196-076	ES2316196-077	ES2316196-078	ES2316196-079	ES2316196-080
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.09**	<0.02	<0.02	**0.04**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.05**	<0.02	<0.02	**0.04**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.11**	<0.01	<0.01	**0.17**	**0.11**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.58**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.02**	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.12**	<0.02	<0.02	<0.02	**0.03**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	**0.01**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW111_230511	0902_MW112_230511	0902_MW113_230511	0902_MW114_230511	0902_MW143_230510
				Sampling date / time	11-May-2023 10:18	11-May-2023 10:36	11-May-2023 11:28	11-May-2023 14:36	10-May-2023 14:27
Compound	CAS Number	LOR	Unit		ES2316196-076	ES2316196-077	ES2316196-078	ES2316196-079	ES2316196-080
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.39**	<0.01	<0.01	**0.25**	**0.73**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.11**	<0.01	<0.01	**0.17**	**0.69**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.34**	<0.01	<0.01	**0.21**	**0.73**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**93.7**	**91.1**	**106**	**97.1**	**99.7**
13C8-PFOA	----	0.02	%		**96.9**	**96.6**	**97.4**	**97.1**	**101**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW144_230510	0902_QC100_230508	0902_QC102_230508	0902_QC103_230509	0902_QC104_230509
				Sampling date / time	10-May-2023 10:25	08-May-2023 12:31	08-May-2023 15:10	09-May-2023 08:15	09-May-2023 09:44
Compound	CAS Number	LOR	Unit		ES2316196-081	ES2316196-123	ES2316196-125	ES2316196-126	ES2316196-127
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	**0.36**	**0.29**	**1.68**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	**0.46**	**0.48**	**2.42**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.05**	<0.01	**3.19**	**3.95**	**12.6**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.17**	**0.15**	**0.38**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.01**	<0.01	**1.88**	**1.35**	**1.28**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	**0.4**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.14**	**0.12**	**0.91**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	**0.72**	**0.55**	**4.19**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	**0.11**	**0.08**	**0.70**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	**0.22**	**0.22**	**0.95**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW144_230510	0902_QC100_230508	0902_QC102_230508	0902_QC103_230509	0902_QC104_230509
				Sampling date / time	10-May-2023 10:25	08-May-2023 12:31	08-May-2023 15:10	09-May-2023 08:15	09-May-2023 09:44
Compound	CAS Number	LOR	Unit		ES2316196-081	ES2316196-123	ES2316196-125	ES2316196-126	ES2316196-127
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	**0.21**
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.06**	<0.01	**7.25**	**7.19**	**25.7**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.06**	<0.01	**5.07**	**5.30**	**13.9**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.06**	<0.01	**6.62**	**6.56**	**22.9**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**94.1**	**93.7**	**105**	**94.2**	**95.2**
13C8-PFOA	----	0.02	%		**97.6**	**97.3**	**99.4**	**99.3**	**102**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC110_230510	0902_QC111_230510	0902_QC112_230510	0902_QC113_230511	----
				Sampling date / time	10-May-2023 11:56	10-May-2023 13:54	10-May-2023 14:28	11-May-2023 06:55	----
Compound	CAS Number	LOR	Unit		ES2316196-133	ES2316196-134	ES2316196-135	ES2316196-136	--------
					Result	Result	Result	Result	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.18**	**0.04**	**0.07**	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.19**	**0.03**	**0.03**	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.03**	**1.62**	**0.14**	**0.26**	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	**0.05**	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	**1.52**	**0.76**	**0.46**	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	**0.06**	<0.02	**0.02**	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.22**	**0.03**	**0.04**	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	**0.03**	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.06**	**0.01**	**0.03**	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_QC110_230510	0902_QC111_230510	0902_QC112_230510	0902_QC113_230511	----
				Sampling date / time	10-May-2023 11:56	10-May-2023 13:54	10-May-2023 14:28	11-May-2023 06:55	----
Compound	CAS Number	LOR	Unit		ES2316196-133	ES2316196-134	ES2316196-135	ES2316196-136	--------
					Result	Result	Result	Result	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.03**	**3.93**	**1.01**	**0.91**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.03**	**3.14**	**0.90**	**0.72**	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.03**	**3.69**	**0.98**	**0.88**	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**116**	**105**	**89.6**	**94.4**	----
13C8-PFOA	----	0.02	%		**99.7**	**99.6**	**83.8**	**91.9**	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC300_230508	0902_QC301_230509	0902_QC302_230510	0902_QC303_230511	0902_QC304_230512
				Sampling date / time	08-May-2023 18:16	09-May-2023 17:24	10-May-2023 15:17	11-May-2023 15:34	12-May-2023 13:53
Compound	CAS Number	LOR	Unit		ES2316196-137	ES2316196-138	ES2316196-139	ES2316196-140	ES2316196-141
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC300_230508	0902_QC301_230509	0902_QC302_230510	0902_QC303_230511	0902_QC304_230512
				Sampling date / time	08-May-2023 18:16	09-May-2023 17:24	10-May-2023 15:17	11-May-2023 15:34	12-May-2023 13:53
Compound	CAS Number	LOR	Unit		ES2316196-137	ES2316196-138	ES2316196-139	ES2316196-140	ES2316196-141
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**110**	**112**	**105**	**105**	**108**
13C8-PFOA	----	0.02	%		**96.3**	**99.4**	**98.2**	**95.6**	**99.5**

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC305_230515	----	----	----	----
				Sampling date / time	15-May-2023 13:55	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2316196-142	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC305_230515	----	----	----	----
				Sampling date / time	15-May-2023 13:55	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2316196-142	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**105**	----	----	----	----
13C8-PFOA	----	0.02	%		**96.4**	----	----	----	----

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0902_SD001_230508	0902_SD002_230508	0902_SD003_230508	0902_SD005_230511	0902_SD007_230511
			Sampling date / time	08-May-2023 14:18	08-May-2023 09:50	08-May-2023 10:07	11-May-2023 11:03	11-May-2023 11:40
Compound	CAS Number	LOR	Unit	ES2316196-082	ES2316196-083	ES2316196-084	ES2316196-085	ES2316196-086
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**39.8**	**58.3**	**69.0**	**59.2**	**44.9**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	**0.0004**	**0.0005**	**0.0019**	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	**0.0003**	**0.0005**	**0.0022**	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0032**	**0.0046**	**0.0204**	**0.0002**	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	**0.0025**	**0.0018**	**0.0067**	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.599**	**0.186**	**0.628**	**0.0040**	**0.0010**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	**0.0214**	**0.0059**	**0.0069**	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	**0.001**	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	**0.0016**	**0.0004**	**0.0011**	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	**0.0020**	**0.0006**	**0.0027**	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	**0.0015**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	**0.0037**	**0.0006**	**0.0016**	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	**0.0230**	**0.0004**	**0.0012**	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	**0.137**	**0.0015**	**0.0033**	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	**0.199**	**0.0022**	**0.0062**	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	**0.193**	**0.0055**	**0.0171**	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	**0.0419**	**0.0022**	**0.0028**	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	**0.0285**	**0.0019**	**0.0018**	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	**0.0065**	**0.0240**	**0.0071**	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD001_230508	0902_SD002_230508	0902_SD003_230508	0902_SD005_230511	0902_SD007_230511
				Sampling date / time	08-May-2023 14:18	08-May-2023 09:50	08-May-2023 10:07	11-May-2023 11:03	11-May-2023 11:40
Compound	CAS Number	LOR	Unit		ES2316196-082	ES2316196-083	ES2316196-084	ES2316196-085	ES2316196-086
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		**0.0039**	<0.0005	**0.0007**	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		**0.174**	**0.0018**	**0.0048**	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		**0.0254**	**0.0011**	**0.0014**	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**1.47**	**0.242**	**0.719**	**0.0042**	**0.0010**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.602**	**0.191**	**0.648**	**0.0042**	**0.0010**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.789**	**0.194**	**0.662**	**0.0042**	**0.0010**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**108**	**101**	**96.7**	**90.8**	**92.9**
13C8-PFOA	----	0.0002	%		**89.8**	**87.8**	**88.5**	**78.2**	**81.6**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0902_SD008_230511	0902_SD009_230511	0902_SD011_230511	0902_SD013_230511	0902_SD014_230511
			Sampling date / time	11-May-2023 14:52	11-May-2023 15:13	11-May-2023 12:19	11-May-2023 12:40	11-May-2023 10:09
Compound	CAS Number	LOR	Unit	ES2316196-087	ES2316196-088	ES2316196-089	ES2316196-090	ES2316196-091
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**76.0**	**73.8**	**28.8**	**32.7**	**33.9**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0007**	**0.0013**	**0.0019**	**0.0012**	**0.0003**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	**0.0002**	**0.0004**	**0.0003**	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0406**	**0.0182**	**0.0360**	**0.0040**	**0.0038**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	**0.0032**	**0.0008**	**0.0007**	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	**0.0004**	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	**0.0002**	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	**0.0005**	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	**0.0008**	**0.0007**	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	**0.0004**	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	**0.0005**	**0.0003**	**0.0003**	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD008_230511	0902_SD009_230511	0902_SD011_230511	0902_SD013_230511	0902_SD014_230511
				Sampling date / time	11-May-2023 14:52	11-May-2023 15:13	11-May-2023 12:19	11-May-2023 12:40	11-May-2023 10:09
Compound	CAS Number	LOR	Unit		ES2316196-087	ES2316196-088	ES2316196-089	ES2316196-090	ES2316196-091
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0465**	**0.0227**	**0.0392**	**0.0052**	**0.0041**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0413**	**0.0195**	**0.0379**	**0.0052**	**0.0041**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0413**	**0.0201**	**0.0379**	**0.0052**	**0.0041**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**92.2**	**86.4**	**95.0**	**81.6**	**93.2**
13C8-PFOA	----	0.0002	%		**84.0**	**80.8**	**96.4**	**92.5**	**92.6**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)			Sample ID	0902_SD015_230510	0902_SD016_230510	0902_SD018_230510	0902_SD019_230510	0902_SD020_230510
			Sampling date / time	10-May-2023 10:22	10-May-2023 09:59	10-May-2023 08:32	10-May-2023 10:50	10-May-2023 11:15
Compound	CAS Number	LOR	Unit	ES2316196-092	ES2316196-093	ES2316196-094	ES2316196-095	ES2316196-096
				Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)								
Moisture Content	----	0.1	%	**45.2**	**49.6**	**21.2**	**30.4**	**17.5**
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	**0.0008**	**0.0005**	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	**0.0110**	**0.0042**	**0.0002**	**0.0005**	<0.0002
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	**0.0007**	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD015_230510	0902_SD016_230510	0902_SD018_230510	0902_SD019_230510	0902_SD020_230510
				Sampling date / time	10-May-2023 10:22	10-May-2023 09:59	10-May-2023 08:32	10-May-2023 10:50	10-May-2023 11:15
Compound	CAS Number	LOR	Unit		ES2316196-092	ES2316196-093	ES2316196-094	ES2316196-095	ES2316196-096
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0125**	**0.0047**	**0.0002**	**0.0005**	<0.0002
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0118**	**0.0047**	**0.0002**	**0.0005**	<0.0002
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0118**	**0.0047**	**0.0002**	**0.0005**	<0.0002
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**83.6**	**91.1**	**97.4**	**92.8**	**92.0**
13C8-PFOA	----	0.0002	%		**79.3**	**93.2**	**86.0**	**88.0**	**83.2**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD022_230509	0902_SD023_230510	0902_SD024_230509	0902_SD030_230510	0902_SD035_230509
				Sampling date / time	09-May-2023 13:32	10-May-2023 08:50	09-May-2023 15:11	10-May-2023 07:50	09-May-2023 14:37
Compound	CAS Number	LOR	Unit		ES2316196-097	ES2316196-098	ES2316196-099	ES2316196-100	ES2316196-101
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**21.5**	**27.7**	**24.8**	**21.8**	**32.1**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**0.0006**	**0.0004**	**0.0005**	<0.0002	**0.0008**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.001	<0.001	<0.001	<0.001	<0.001
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_SD022_230509	0902_SD023_230510	0902_SD024_230509	0902_SD030_230510	0902_SD035_230509
				Sampling date / time	09-May-2023 13:32	10-May-2023 08:50	09-May-2023 15:11	10-May-2023 07:50	09-May-2023 14:37
Compound	CAS Number	LOR	Unit		ES2316196-097	ES2316196-098	ES2316196-099	ES2316196-100	ES2316196-101
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**0.0006**	**0.0004**	**0.0005**	<0.0002	**0.0008**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**0.0006**	**0.0004**	**0.0005**	<0.0002	**0.0008**
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**0.0006**	**0.0004**	**0.0005**	<0.0002	**0.0008**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**92.6**	**85.5**	**92.6**	**95.0**	**111**
13C8-PFOA	----	0.0002	%		**83.0**	**79.6**	**82.6**	**85.8**	**94.5**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_QC101_230508	0902_QC106_230509	0902_QC108_230510	----	----
				Sampling date / time	08-May-2023 14:20	09-May-2023 14:42	10-May-2023 07:51	----	----
Compound	CAS Number	LOR	Unit		ES2316196-124	ES2316196-129	ES2316196-131	--------	--------
					Result	Result	Result	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	0.1	%		**81.5**	**36.6**	**26.1**	**----**	**----**
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg		**0.0043**	<0.0002	<0.0002	**----**	**----**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg		**0.0068**	<0.0002	<0.0002	**----**	**----**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg		**0.0995**	<0.0002	<0.0002	**----**	**----**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg		**0.0517**	<0.0002	<0.0002	**----**	**----**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg		**13.9**	**0.0006**	<0.0002	**----**	**----**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg		**0.477**	<0.0002	<0.0002	**----**	**----**
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg		<0.012	<0.001	<0.001	**----**	**----**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg		**0.0122**	<0.0002	<0.0002	**----**	**----**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg		**0.0257**	<0.0002	<0.0002	**----**	**----**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg		**0.0324**	<0.0002	<0.0002	**----**	**----**
Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg		**0.103**	<0.0002	<0.0002	**----**	**----**
Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg		**0.597**	<0.0002	<0.0002	**----**	**----**
Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg		**3.85**	<0.0002	<0.0002	**----**	**----**
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg		**8.25**	<0.0002	<0.0002	**----**	**----**
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg		**6.90**	<0.0002	<0.0002	**----**	**----**
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg		**1.50**	<0.0002	<0.0002	**----**	**----**
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg		**0.679**	<0.0005	<0.0005	**----**	**----**
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg		**0.149**	<0.0002	<0.0002	**----**	**----**
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg		<0.0062	<0.0005	<0.0005	**----**	**----**

Analytical Results

Sub-Matrix: SEDIMENT (Matrix: SOIL)				Sample ID	0902_QC101_230508	0902_QC106_230509	0902_QC108_230510	----	----
				Sampling date / time	08-May-2023 14:20	09-May-2023 14:42	10-May-2023 07:51	----	----
Compound	CAS Number	LOR	Unit		ES2316196-124	ES2316196-129	ES2316196-131	--------	--------
					Result	Result	Result	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg		<0.0062	<0.0005	<0.0005	----	----
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg		<0.0062	<0.0005	<0.0005	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg		<0.0062	<0.0005	<0.0005	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg		<0.0025	<0.0002	<0.0002	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg		<0.0025	<0.0002	<0.0002	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg		<0.0025	<0.0005	<0.0005	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg		**0.114**	<0.0005	<0.0005	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg		**4.99**	<0.0005	<0.0005	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg		**0.562**	<0.0005	<0.0005	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.0002	mg/kg		**42.3**	**0.0006**	<0.0002	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.0002	mg/kg		**14.0**	**0.0006**	<0.0002	----	----
Sum of PFAS (WA DER List)	----	0.0002	mg/kg		**19.3**	**0.0006**	<0.0002	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.0002	%		**90.0**	**104**	**106**	----	----
13C8-PFOA	----	0.0002	%		**90.0**	**99.5**	**95.5**	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW001_230508	0902_SW002_230508	0902_SW003_230508	0902_SW005_230511	0902_SW007_230511
				Sampling date / time	08-May-2023 14:16	08-May-2023 09:45	08-May-2023 10:00	11-May-2023 11:03	11-May-2023 11:37
Compound	CAS Number	LOR	Unit		ES2316196-102	ES2316196-103	ES2316196-104	ES2316196-105	ES2316196-106
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.56**	**0.50**	**0.66**	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.50**	**0.48**	**0.64**	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**3.12**	**3.13**	**3.87**	**0.08**	**0.10**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		**0.43**	**0.26**	**0.31**	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**17.0**	**8.65**	**9.42**	**0.20**	**0.06**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		**0.17**	<0.02	**0.02**	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		**1.3**	**0.1**	**0.2**	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**2.68**	**0.23**	**0.33**	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**4.14**	**0.82**	**1.08**	<0.02	**0.03**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		**2.89**	**0.16**	**0.20**	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**3.69**	**0.30**	**0.39**	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		**3.60**	**0.03**	**0.09**	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		**3.28**	**0.02**	**0.07**	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		**1.63**	<0.02	**0.03**	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		**1.06**	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		**0.19**	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		**0.15**	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		**0.07**	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW001_230508	0902_SW002_230508	0902_SW003_230508	0902_SW005_230511	0902_SW007_230511
				Sampling date / time	08-May-2023 14:16	08-May-2023 09:45	08-May-2023 10:00	11-May-2023 11:03	11-May-2023 11:37
Compound	CAS Number	LOR	Unit		ES2316196-102	ES2316196-103	ES2316196-104	ES2316196-105	ES2316196-106
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		**0.96**	**0.08**	**0.06**	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		**7.09**	<0.05	**0.07**	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		**0.12**	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**54.6**	**14.8**	**17.4**	**0.28**	**0.19**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**20.1**	**11.8**	**13.3**	**0.28**	**0.16**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**43.4**	**14.0**	**16.3**	**0.28**	**0.19**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**99.3**	**99.0**	**103**	**96.7**	**103**
13C8-PFOA	----	0.02	%		**100**	**96.4**	**97.1**	**99.7**	**97.6**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW008_230511	0902_SW009_230511	0902_SW011_230511	0902_SW013_230511	0902_SW014_230511
				Sampling date / time	11-May-2023 14:52	11-May-2023 15:13	11-May-2023 12:17	11-May-2023 12:41	11-May-2023 10:07
Compound	CAS Number	LOR	Unit		ES2316196-107	ES2316196-108	ES2316196-109	ES2316196-110	ES2316196-111
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	**0.02**	**0.06**	**0.13**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	**0.02**	**0.04**	**0.11**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.04**	**0.17**	**0.40**	**0.76**	**0.23**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	**0.03**	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.12**	**0.63**	**2.02**	**0.38**	**0.45**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	**0.04**	**0.03**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.04**	**0.10**	**0.13**	**0.04**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.02**	**0.04**	**0.04**	**0.02**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW008_230511	0902_SW009_230511	0902_SW011_230511	0902_SW013_230511	0902_SW014_230511
				Sampling date / time	11-May-2023 14:52	11-May-2023 15:13	11-May-2023 12:17	11-May-2023 12:41	11-May-2023 10:07
Compound	CAS Number	LOR	Unit		ES2316196-107	ES2316196-108	ES2316196-109	ES2316196-110	ES2316196-111
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	**0.07**	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.16**	**0.90**	**2.80**	**1.58**	**0.74**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.16**	**0.80**	**2.42**	**1.14**	**0.68**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.16**	**0.88**	**2.73**	**1.47**	**0.74**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**97.5**	**95.0**	**95.3**	**96.1**	**98.1**
13C8-PFOA	----	0.02	%		**95.8**	**98.0**	**97.1**	**94.5**	**101**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW015_230510	0902_SW016_230510	0902_SW018_230510	0902_SW019_230510	0902_SW020_230510
				Sampling date / time	10-May-2023 10:21	10-May-2023 10:00	10-May-2023 08:31	10-May-2023 10:49	10-May-2023 11:15
Compound	CAS Number	LOR	Unit		ES2316196-112	ES2316196-113	ES2316196-114	ES2316196-115	ES2316196-116
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.02**	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.03**	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.23**	**0.01**	**0.01**	**0.02**	**0.02**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.16**	**0.05**	**0.02**	**0.03**	**0.04**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.02**	<0.02	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW015_230510	0902_SW016_230510	0902_SW018_230510	0902_SW019_230510	0902_SW020_230510
				Sampling date / time	10-May-2023 10:21	10-May-2023 10:00	10-May-2023 08:31	10-May-2023 10:49	10-May-2023 11:15
Compound	CAS Number	LOR	Unit		ES2316196-112	ES2316196-113	ES2316196-114	ES2316196-115	ES2316196-116
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.46**	**0.06**	**0.03**	**0.05**	**0.06**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.39**	**0.06**	**0.03**	**0.05**	**0.06**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.43**	**0.06**	**0.03**	**0.05**	**0.06**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**103**	**99.1**	**97.7**	**102**	**98.9**
13C8-PFOA	----	0.02	%		**102**	**101**	**100**	**99.9**	**98.3**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW022_230509	0902_SW023_230510	0902_SW024_230509	0902_SW030_230510	0902_SW035_230509
				Sampling date / time	09-May-2023 13:28	10-May-2023 08:51	09-May-2023 15:08	10-May-2023 07:52	09-May-2023 14:36
Compound	CAS Number	LOR	Unit		ES2316196-117	ES2316196-118	ES2316196-119	ES2316196-120	ES2316196-121
					Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.07**	**0.08**	<0.01	<0.01	**0.04**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.04**	**0.17**	<0.01	<0.01	**0.04**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	**0.02**	<0.02	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	**0.01**	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW022_230509	0902_SW023_230510	0902_SW024_230509	0902_SW030_230510	0902_SW035_230509
				Sampling date / time	09-May-2023 13:28	10-May-2023 08:51	09-May-2023 15:08	10-May-2023 07:52	09-May-2023 14:36
Compound	CAS Number	LOR	Unit		ES2316196-117	ES2316196-118	ES2316196-119	ES2316196-120	ES2316196-121
					Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.11**	**0.28**	<0.01	<0.01	**0.08**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.11**	**0.25**	<0.01	<0.01	**0.08**
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.11**	**0.28**	<0.01	<0.01	**0.08**
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**99.7**	**93.0**	**96.9**	**89.6**	**90.0**
13C8-PFOA	----	0.02	%		**100**	**99.7**	**101**	**101**	**104**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW037_230508	0902_QC105_230509	0902_QC107_230509	0902_QC109_230510	----
				Sampling date / time	08-May-2023 10:59	09-May-2023 13:30	09-May-2023 15:11	10-May-2023 08:31	----
Compound	CAS Number	LOR	Unit		ES2316196-122	ES2316196-128	ES2316196-130	ES2316196-132	--------
					Result	Result	Result	Result	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.02**	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.17**	**0.05**	<0.01	**0.01**	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.74**	**0.02**	<0.01	**0.02**	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.05**	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.03**	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW037_230508	0902_QC105_230509	0902_QC107_230509	0902_QC109_230510	----
				Sampling date / time	08-May-2023 10:59	09-May-2023 13:30	09-May-2023 15:11	10-May-2023 08:31	----
Compound	CAS Number	LOR	Unit		ES2316196-122	ES2316196-128	ES2316196-130	ES2316196-132	--------
					Result	Result	Result	Result	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**1.01**	**0.07**	<0.01	**0.03**	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.91**	**0.07**	<0.01	**0.03**	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.99**	**0.07**	<0.01	**0.03**	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**97.7**	**97.3**	**95.9**	**88.3**	----
13C8-PFOA	----	0.02	%		**102**	**101**	**102**	**98.3**	----

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: RINSATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SEDIMENT		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2316196**	Page	: 1 of 18
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP_23	Date Samples Received	: 16-May-2023
Site	: 0902	Issue Date	: 26-May-2023
Sampler	: JACK RAWSTHORNE, NICOLA TOMLIN	No. of samples received	: 142
Order number	: 60612562_5.1	No. of samples analysed	: 142

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2316196--021	0902_MW026_230512	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2316196--134	0902_QC111_230510	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**
EP231A: Perfluoroalkyl Sulfonic Acids	ES2316196--134	0902_QC111_230510	**Perfluorooctane sulfonic acid (PFOS)**	1763-23-1	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC 13	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	13	133	9.77	10.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / ***Container*** / *Client Sample ID(s)*	***Sample Date***	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	***Date analysed***	*Due for analysis*	*Evaluation*

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content (Dried @ 105-110°C)							
HDPE Soil Jar (EA055) 0902_SD001_230508, 0902_SD002_230508, 0902_SD003_230508, 0902_QC101_230508	**08-May-2023**	**----**	----	----	**18-May-2023**	22-May-2023	✓
HDPE Soil Jar (EA055) 0902_SD022_230509, 0902_SD024_230509, 0902_SD035_230509, 0902_QC106_230509	**09-May-2023**	**----**	----	----	**18-May-2023**	23-May-2023	✓
HDPE Soil Jar (EA055) 0902_SD015_230510, 0902_SD016_230510, 0902_SD018_230510, 0902_SD019_230510, 0902_SD020_230510, 0902_SD023_230510, 0902_SD030_230510, 0902_QC108_230510	**10-May-2023**	**----**	----	----	**18-May-2023**	24-May-2023	✓
HDPE Soil Jar (EA055) 0902_SD005_230511, 0902_SD007_230511, 0902_SD008_230511, 0902_SD009_230511, 0902_SD011_230511, 0902_SD013_230511, 0902_SD014_230511	**11-May-2023**	**----**	----	----	**18-May-2023**	25-May-2023	✓
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD001_230508, 0902_SD002_230508, 0902_SD003_230508	**08-May-2023**	**17-May-2023**	04-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_QC101_230508	**08-May-2023**	**19-May-2023**	04-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD022_230509, 0902_SD024_230509	**09-May-2023**	**17-May-2023**	05-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD035_230509, 0902_QC106_230509	**09-May-2023**	**19-May-2023**	05-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD015_230510, 0902_SD016_230510, 0902_SD018_230510, 0902_SD019_230510, 0902_SD020_230510, 0902_SD023_230510, 0902_SD030_230510	**10-May-2023**	**17-May-2023**	06-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_QC108_230510	**10-May-2023**	**19-May-2023**	06-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD005_230511, 0902_SD007_230511, 0902_SD008_230511, 0902_SD009_230511, 0902_SD011_230511, 0902_SD013_230511, 0902_SD014_230511	**11-May-2023**	**17-May-2023**	07-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE Soil Jar (EP231X) 0902_SD001_230508, 0902_SD002_230508, 0902_SD003_230508	**08-May-2023**	**17-May-2023**	04-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_QC101_230508	**08-May-2023**	**19-May-2023**	04-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD022_230509, 0902_SD024_230509	**09-May-2023**	**17-May-2023**	05-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD035_230509, 0902_QC106_230509	**09-May-2023**	**19-May-2023**	05-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD015_230510, 0902_SD016_230510, 0902_SD018_230510, 0902_SD019_230510, 0902_SD020_230510, 0902_SD023_230510, 0902_SD030_230510	**10-May-2023**	**17-May-2023**	06-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_QC108_230510	**10-May-2023**	**19-May-2023**	06-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD005_230511, 0902_SD007_230511, 0902_SD008_230511, 0902_SD009_230511, 0902_SD011_230511, 0902_SD013_230511, 0902_SD014_230511	**11-May-2023**	**17-May-2023**	07-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE Soil Jar (EP231X) 0902_SD001_230508, 0902_SD002_230508, 0902_SD003_230508	**08-May-2023**	**17-May-2023**	04-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_QC101_230508	**08-May-2023**	**19-May-2023**	04-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD022_230509, 0902_SD024_230509	**09-May-2023**	**17-May-2023**	05-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD035_230509, 0902_QC106_230509	**09-May-2023**	**19-May-2023**	05-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD015_230510, 0902_SD016_230510, 0902_SD018_230510, 0902_SD019_230510, 0902_SD020_230510, 0902_SD023_230510, 0902_SD030_230510	**10-May-2023**	**17-May-2023**	06-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_QC108_230510	**10-May-2023**	**19-May-2023**	06-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD005_230511, 0902_SD007_230511, 0902_SD008_230511, 0902_SD009_230511, 0902_SD011_230511, 0902_SD013_230511, 0902_SD014_230511	**11-May-2023**	**17-May-2023**	07-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE Soil Jar (EP231X) 0902_SD001_230508, 0902_SD002_230508, 0902_SD003_230508	**08-May-2023**	**17-May-2023**	04-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_QC101_230508	**08-May-2023**	**19-May-2023**	04-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD022_230509, 0902_SD024_230509	**09-May-2023**	**17-May-2023**	05-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD035_230509, 0902_QC106_230509	**09-May-2023**	**19-May-2023**	05-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD015_230510, 0902_SD016_230510, 0902_SD018_230510, 0902_SD019_230510, 0902_SD020_230510, 0902_SD023_230510, 0902_SD030_230510	**10-May-2023**	**17-May-2023**	06-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_QC108_230510	**10-May-2023**	**19-May-2023**	06-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD005_230511, 0902_SD007_230511, 0902_SD008_230511, 0902_SD009_230511, 0902_SD011_230511, 0902_SD013_230511, 0902_SD014_230511	**11-May-2023**	**17-May-2023**	07-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
EP231P: PFAS Sums							
HDPE Soil Jar (EP231X) 0902_SD001_230508, 0902_SD002_230508, 0902_SD003_230508	**08-May-2023**	**17-May-2023**	04-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_QC101_230508	**08-May-2023**	**19-May-2023**	04-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD022_230509, 0902_SD024_230509	**09-May-2023**	**17-May-2023**	05-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD035_230509, 0902_QC106_230509	**09-May-2023**	**19-May-2023**	05-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD015_230510, 0902_SD016_230510, 0902_SD018_230510, 0902_SD019_230510, 0902_SD020_230510, 0902_SD023_230510, 0902_SD030_230510	**10-May-2023**	**17-May-2023**	06-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_QC108_230510	**10-May-2023**	**19-May-2023**	06-Nov-2023	✓	**23-May-2023**	28-Jun-2023	✓
HDPE Soil Jar (EP231X) 0902_SD005_230511, 0902_SD007_230511, 0902_SD008_230511, 0902_SD009_230511, 0902_SD011_230511, 0902_SD013_230511, 0902_SD014_230511	**11-May-2023**	**17-May-2023**	07-Nov-2023	✓	**19-May-2023**	26-Jun-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW020_230508, 0902_MW021_230508, 0902_MW022_230508, 0902_MW023_230508, 0902_MW030_230508, 0902_MW036_230508	**08-May-2023**	**18-May-2023**	04-Nov-2023	✓	**22-May-2023**	04-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW075_230508, 0902_MW080_230508, 0902_MW106_230508, 0902_MW107D_230508, 0902_MW108_230508, 0902_MW109_230508, 0902_MW110_230508, 0902_SW001_230508, 0902_SW002_230508, 0902_SW003_230508, 0902_SW037_230508, 0902_QC100_230508, 0902_QC102_230508, 0902_QC300_230508	**08-May-2023**	**19-May-2023**	04-Nov-2023	✓	**23-May-2023**	04-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW025_230509, 0902_MW045_230509, 0902_MW046_230509, 0902_MW053_230509, 0902_MW054_230509, 0902_MW056_230509, 0902_MW057_230509, 0902_MW058_230509, 0902_MW059_230509, 0902_MW060_230509, 0902_MW061_230509, 0902_MW062_230509, 0902_MW063_230509, 0902_MW064_230509, 0902_MW065_230509, 0902_MW066_230509, 0902_MW067_230509, 0902_MW068_230509, 0902_MW070_230509, 0902_MW071_230509	**09-May-2023**	**18-May-2023**	05-Nov-2023	✓	**22-May-2023**	05-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW081_230509, 0902_MW082_230509, 0902_MW107I_230509, 0902_SW022_230509, 0902_SW024_230509, 0902_SW035_230509, 0902_QC103_230509, 0902_QC104_230509, 0902_QC105_230509, 0902_QC107_230509, 0902_QC301_230509	**09-May-2023**	**19-May-2023**	05-Nov-2023	✓	**23-May-2023**	05-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW076_230510, 0902_MW077_230510, 0902_MW079_230510, 0902_MW091_230510, 0902_MW092_230510, 0902_MW143_230510, 0902_MW144_230510, 0902_SW015_230510, 0902_SW016_230510, 0902_SW018_230510, 0902_SW019_230510, 0902_SW020_230510, 0902_SW023_230510, 0902_SW030_230510, 0902_QC109_230510, 0902_QC110_230510, 0902_QC111_230510, 0902_QC112_230510, 0902_QC302_230510	**10-May-2023**	**19-May-2023**	06-Nov-2023	✓	**23-May-2023**	06-Nov-2023	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued							
0902_MW001_230511, 0902_MW002_230511, 0902_MW004_230511, 0902_MW005_230511, 0902_MW012_230511, 0902_MW013_230511, 0902_MW014_230511, 0902_MW015_23011, 0902_MW016_230511, 0902_MW017_230511, 0902_MW069_230511	**11-May-2023**	**18-May-2023**	07-Nov-2023	✓	**22-May-2023**	07-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW078_230511, 0902_MW111_230511, 0902_MW112_230511, 0902_MW113_230511, 0902_MW114_230511, 0902_SW005_230511, 0902_SW007_230511, 0902_SW008_230511, 0902_SW009_230511, 0902_SW011_230511, 0902_SW013_230511, 0902_SW014_230511, 0902_QC113_230511, 0902_QC303_230511	**11-May-2023**	**19-May-2023**	07-Nov-2023	✓	**23-May-2023**	07-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW008_230511, 0902_MW009_230511, 0902_MW010_230511, 0902_MW024_230512, 0902_MW026_230512, 0902_MW028_230512, 0902_MW040_230511, 0902_MW042_230511, 0902_MW048_230511	**12-May-2023**	**18-May-2023**	08-Nov-2023	✓	**22-May-2023**	08-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_QC304_230512	**12-May-2023**	**19-May-2023**	08-Nov-2023	✓	**23-May-2023**	08-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW007_230515, 0902_MW032_230515, 0902_MW033_230515, 0902_MW034_230515, 0902_MW041_230515, 0902_MW043_230515, 0902_MW047_230515, 0902_MW050_230515, 0902_MW051_230515, 0902_MW052_230515, 0902_MW072_230515	**15-May-2023**	**18-May-2023**	11-Nov-2023	✓	**22-May-2023**	11-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW073_230515, 0902_MW074_230515, 0902_QC305_230515	**15-May-2023**	**19-May-2023**	11-Nov-2023	✓	**23-May-2023**	11-Nov-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW020_230508, 0902_MW021_230508, 0902_MW022_230508, 0902_MW023_230508, 0902_MW030_230508, 0902_MW036_230508	**08-May-2023**	**18-May-2023**	04-Nov-2023	✓	**22-May-2023**	04-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW075_230508, 0902_MW080_230508, 0902_MW106_230508, 0902_MW107D_230508, 0902_MW108_230508, 0902_MW109_230508, 0902_MW110_230508, 0902_SW001_230508, 0902_SW002_230508, 0902_SW003_230508, 0902_SW037_230508, 0902_QC100_230508, 0902_QC102_230508, 0902_QC300_230508	**08-May-2023**	**19-May-2023**	04-Nov-2023	✓	**23-May-2023**	04-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW025_230509, 0902_MW045_230509, 0902_MW046_230509, 0902_MW053_230509, 0902_MW054_230509, 0902_MW056_230509, 0902_MW057_230509, 0902_MW058_230509, 0902_MW059_230509, 0902_MW060_230509, 0902_MW061_230509, 0902_MW062_230509, 0902_MW063_230509, 0902_MW064_230509, 0902_MW065_230509, 0902_MW066_230509, 0902_MW067_230509, 0902_MW068_230509, 0902_MW070_230509, 0902_MW071_230509	**09-May-2023**	**18-May-2023**	05-Nov-2023	✓	**22-May-2023**	05-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW081_230509, 0902_MW082_230509, 0902_MW107I_230509, 0902_SW022_230509, 0902_SW024_230509, 0902_SW035_230509, 0902_QC103_230509, 0902_QC104_230509, 0902_QC105_230509, 0902_QC107_230509, 0902_QC301_230509	**09-May-2023**	**19-May-2023**	05-Nov-2023	✓	**23-May-2023**	05-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW076_230510, 0902_MW077_230510, 0902_MW079_230510, 0902_MW091_230510, 0902_MW092_230510, 0902_MW143_230510, 0902_MW144_230510, 0902_SW015_230510, 0902_SW016_230510, 0902_SW018_230510, 0902_SW019_230510, 0902_SW020_230510, 0902_SW023_230510, 0902_SW030_230510, 0902_QC109_230510, 0902_QC110_230510, 0902_QC111_230510, 0902_QC112_230510, 0902_QC302_230510	**10-May-2023**	**19-May-2023**	06-Nov-2023	✓	**23-May-2023**	06-Nov-2023	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231B: Perfluoroalkyl Carboxylic Acids - Continued							
0902_MW001_230511, 0902_MW002_230511, 0902_MW004_230511, 0902_MW005_230511, 0902_MW012_230511, 0902_MW013_230511, 0902_MW014_230511, 0902_MW015_23011, 0902_MW016_230511, 0902_MW017_230511, 0902_MW069_230511	**11-May-2023**	**18-May-2023**	07-Nov-2023	✓	**22-May-2023**	07-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW078_230511, 0902_MW111_230511, 0902_MW112_230511, 0902_MW113_230511, 0902_MW114_230511, 0902_SW005_230511, 0902_SW007_230511, 0902_SW008_230511, 0902_SW009_230511, 0902_SW011_230511, 0902_SW013_230511, 0902_SW014_230511, 0902_QC113_230511, 0902_QC303_230511	**11-May-2023**	**19-May-2023**	07-Nov-2023	✓	**23-May-2023**	07-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW008_230511, 0902_MW009_230511, 0902_MW010_230511, 0902_MW024_230512, 0902_MW026_230512, 0902_MW028_230512, 0902_MW040_230511, 0902_MW042_230511, 0902_MW048_230511	**12-May-2023**	**18-May-2023**	08-Nov-2023	✓	**22-May-2023**	08-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_QC304_230512	**12-May-2023**	**19-May-2023**	08-Nov-2023	✓	**23-May-2023**	08-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW007_230515, 0902_MW032_230515, 0902_MW033_230515, 0902_MW034_230515, 0902_MW041_230515, 0902_MW043_230515, 0902_MW047_230515, 0902_MW050_230515, 0902_MW051_230515, 0902_MW052_230515, 0902_MW072_230515	**15-May-2023**	**18-May-2023**	11-Nov-2023	✓	**22-May-2023**	11-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW073_230515, 0902_MW074_230515, 0902_QC305_230515	**15-May-2023**	**19-May-2023**	11-Nov-2023	✓	**23-May-2023**	11-Nov-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0902_MW020_230508, 0902_MW021_230508, 0902_MW022_230508, 0902_MW023_230508, 0902_MW030_230508, 0902_MW036_230508	**08-May-2023**	**18-May-2023**	04-Nov-2023	✓	**22-May-2023**	04-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW075_230508, 0902_MW080_230508, 0902_MW106_230508, 0902_MW107D_230508, 0902_MW108_230508, 0902_MW109_230508, 0902_MW110_230508, 0902_SW001_230508, 0902_SW002_230508, 0902_SW003_230508, 0902_SW037_230508, 0902_QC100_230508, 0902_QC102_230508, 0902_QC300_230508	**08-May-2023**	**19-May-2023**	04-Nov-2023	✓	**23-May-2023**	04-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW025_230509, 0902_MW045_230509, 0902_MW046_230509, 0902_MW053_230509, 0902_MW054_230509, 0902_MW056_230509, 0902_MW057_230509, 0902_MW058_230509, 0902_MW059_230509, 0902_MW060_230509, 0902_MW061_230509, 0902_MW062_230509, 0902_MW063_230509, 0902_MW064_230509, 0902_MW065_230509, 0902_MW066_230509, 0902_MW067_230509, 0902_MW068_230509, 0902_MW070_230509, 0902_MW071_230509	**09-May-2023**	**18-May-2023**	05-Nov-2023	✓	**22-May-2023**	05-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW081_230509, 0902_MW082_230509, 0902_MW107I_230509, 0902_SW022_230509, 0902_SW024_230509, 0902_SW035_230509, 0902_QC103_230509, 0902_QC104_230509, 0902_QC105_230509, 0902_QC107_230509, 0902_QC301_230509	**09-May-2023**	**19-May-2023**	05-Nov-2023	✓	**23-May-2023**	05-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW076_230510, 0902_MW077_230510, 0902_MW079_230510, 0902_MW091_230510, 0902_MW092_230510, 0902_MW143_230510, 0902_MW144_230510, 0902_SW015_230510, 0902_SW016_230510, 0902_SW018_230510, 0902_SW019_230510, 0902_SW020_230510, 0902_SW023_230510, 0902_SW030_230510, 0902_QC109_230510, 0902_QC110_230510, 0902_QC111_230510, 0902_QC112_230510, 0902_QC302_230510	**10-May-2023**	**19-May-2023**	06-Nov-2023	✓	**23-May-2023**	06-Nov-2023	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides - Continued							
0902_MW001_230511, 0902_MW002_230511, 0902_MW004_230511, 0902_MW005_230511, 0902_MW012_230511, 0902_MW013_230511, 0902_MW014_230511, 0902_MW015_23011, 0902_MW016_230511, 0902_MW017_230511, 0902_MW069_230511	**11-May-2023**	**18-May-2023**	07-Nov-2023	✓	**22-May-2023**	07-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW078_230511, 0902_MW111_230511, 0902_MW112_230511, 0902_MW113_230511, 0902_MW114_230511, 0902_SW005_230511, 0902_SW007_230511, 0902_SW008_230511, 0902_SW009_230511, 0902_SW011_230511, 0902_SW013_230511, 0902_SW014_230511, 0902_QC113_230511, 0902_QC303_230511	**11-May-2023**	**19-May-2023**	07-Nov-2023	✓	**23-May-2023**	07-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW008_230511, 0902_MW009_230511, 0902_MW010_230511, 0902_MW024_230512, 0902_MW026_230512, 0902_MW028_230512, 0902_MW040_230511, 0902_MW042_230511, 0902_MW048_230511	**12-May-2023**	**18-May-2023**	08-Nov-2023	✓	**22-May-2023**	08-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_QC304_230512	**12-May-2023**	**19-May-2023**	08-Nov-2023	✓	**23-May-2023**	08-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW007_230515, 0902_MW032_230515, 0902_MW033_230515, 0902_MW034_230515, 0902_MW041_230515, 0902_MW043_230515, 0902_MW047_230515, 0902_MW050_230515, 0902_MW051_230515, 0902_MW052_230515, 0902_MW072_230515	**15-May-2023**	**18-May-2023**	11-Nov-2023	✓	**22-May-2023**	11-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW073_230515, 0902_MW074_230515, 0902_QC305_230515	**15-May-2023**	**19-May-2023**	11-Nov-2023	✓	**23-May-2023**	11-Nov-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0902_MW020_230508, 0902_MW021_230508, 0902_MW022_230508, 0902_MW023_230508, 0902_MW030_230508, 0902_MW036_230508	**08-May-2023**	**18-May-2023**	04-Nov-2023	✓	**22-May-2023**	04-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW075_230508, 0902_MW080_230508, 0902_MW106_230508, 0902_MW107D_230508, 0902_MW108_230508, 0902_MW109_230508, 0902_MW110_230508, 0902_SW001_230508, 0902_SW002_230508, 0902_SW003_230508, 0902_SW037_230508, 0902_QC100_230508, 0902_QC102_230508, 0902_QC300_230508	**08-May-2023**	**19-May-2023**	04-Nov-2023	✓	**23-May-2023**	04-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW025_230509, 0902_MW045_230509, 0902_MW046_230509, 0902_MW053_230509, 0902_MW054_230509, 0902_MW056_230509, 0902_MW057_230509, 0902_MW058_230509, 0902_MW059_230509, 0902_MW060_230509, 0902_MW061_230509, 0902_MW062_230509, 0902_MW063_230509, 0902_MW064_230509, 0902_MW065_230509, 0902_MW066_230509, 0902_MW067_230509, 0902_MW068_230509, 0902_MW070_230509, 0902_MW071_230509	**09-May-2023**	**18-May-2023**	05-Nov-2023	✓	**22-May-2023**	05-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW081_230509, 0902_MW082_230509, 0902_MW107I_230509, 0902_SW022_230509, 0902_SW024_230509, 0902_SW035_230509, 0902_QC103_230509, 0902_QC104_230509, 0902_QC105_230509, 0902_QC107_230509, 0902_QC301_230509	**09-May-2023**	**19-May-2023**	05-Nov-2023	✓	**23-May-2023**	05-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW076_230510, 0902_MW077_230510, 0902_MW079_230510, 0902_MW091_230510, 0902_MW092_230510, 0902_MW143_230510, 0902_MW144_230510, 0902_SW015_230510, 0902_SW016_230510, 0902_SW018_230510, 0902_SW019_230510, 0902_SW020_230510, 0902_SW023_230510, 0902_SW030_230510, 0902_QC109_230510, 0902_QC110_230510, 0902_QC111_230510, 0902_QC112_230510, 0902_QC302_230510	**10-May-2023**	**19-May-2023**	06-Nov-2023	✓	**23-May-2023**	06-Nov-2023	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued							
0902_MW001_230511, 0902_MW002_230511, 0902_MW004_230511, 0902_MW005_230511, 0902_MW012_230511, 0902_MW013_230511, 0902_MW014_230511, 0902_MW015_23011, 0902_MW016_230511, 0902_MW017_230511, 0902_MW069_230511	**11-May-2023**	**18-May-2023**	07-Nov-2023	✓	**22-May-2023**	07-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW078_230511, 0902_MW111_230511, 0902_MW112_230511, 0902_MW113_230511, 0902_MW114_230511, 0902_SW005_230511, 0902_SW007_230511, 0902_SW008_230511, 0902_SW009_230511, 0902_SW011_230511, 0902_SW013_230511, 0902_SW014_230511, 0902_QC113_230511, 0902_QC303_230511	**11-May-2023**	**19-May-2023**	07-Nov-2023	✓	**23-May-2023**	07-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW008_230511, 0902_MW009_230511, 0902_MW010_230511, 0902_MW024_230512, 0902_MW026_230512, 0902_MW028_230512, 0902_MW040_230511, 0902_MW042_230511, 0902_MW048_230511	**12-May-2023**	**18-May-2023**	08-Nov-2023	✓	**22-May-2023**	08-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_QC304_230512	**12-May-2023**	**19-May-2023**	08-Nov-2023	✓	**23-May-2023**	08-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW007_230515, 0902_MW032_230515, 0902_MW033_230515, 0902_MW034_230515, 0902_MW041_230515, 0902_MW043_230515, 0902_MW047_230515, 0902_MW050_230515, 0902_MW051_230515, 0902_MW052_230515, 0902_MW072_230515	**15-May-2023**	**18-May-2023**	11-Nov-2023	✓	**22-May-2023**	11-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW073_230515, 0902_MW074_230515, 0902_QC305_230515	**15-May-2023**	**19-May-2023**	11-Nov-2023	✓	**23-May-2023**	11-Nov-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0902_MW020_230508, 0902_MW021_230508, 0902_MW022_230508, 0902_MW023_230508, 0902_MW030_230508, 0902_MW036_230508	**08-May-2023**	**18-May-2023**	04-Nov-2023	✓	**22-May-2023**	04-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW075_230508, 0902_MW080_230508, 0902_MW106_230508, 0902_MW107D_230508, 0902_MW108_230508, 0902_MW109_230508, 0902_MW110_230508, 0902_SW001_230508, 0902_SW002_230508, 0902_SW003_230508, 0902_SW037_230508, 0902_QC100_230508, 0902_QC102_230508, 0902_QC300_230508	**08-May-2023**	**19-May-2023**	04-Nov-2023	✓	**23-May-2023**	04-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW025_230509, 0902_MW045_230509, 0902_MW046_230509, 0902_MW053_230509, 0902_MW054_230509, 0902_MW056_230509, 0902_MW057_230509, 0902_MW058_230509, 0902_MW059_230509, 0902_MW060_230509, 0902_MW061_230509, 0902_MW062_230509, 0902_MW063_230509, 0902_MW064_230509, 0902_MW065_230509, 0902_MW066_230509, 0902_MW067_230509, 0902_MW068_230509, 0902_MW070_230509, 0902_MW071_230509	**09-May-2023**	**18-May-2023**	05-Nov-2023	✓	**22-May-2023**	05-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW081_230509, 0902_MW082_230509, 0902_MW107I_230509, 0902_SW022_230509, 0902_SW024_230509, 0902_SW035_230509, 0902_QC103_230509, 0902_QC104_230509, 0902_QC105_230509, 0902_QC107_230509, 0902_QC301_230509	**09-May-2023**	**19-May-2023**	05-Nov-2023	✓	**23-May-2023**	05-Nov-2023	✓
HDPE (no PTFE) (EP231X)							
0902_MW076_230510, 0902_MW077_230510, 0902_MW079_230510, 0902_MW091_230510, 0902_MW092_230510, 0902_MW143_230510, 0902_MW144_230510, 0902_SW015_230510, 0902_SW016_230510, 0902_SW018_230510, 0902_SW019_230510, 0902_SW020_230510, 0902_SW023_230510, 0902_SW030_230510, 0902_QC109_230510, 0902_QC110_230510, 0902_QC111_230510, 0902_QC112_230510, 0902_QC302_230510	**10-May-2023**	**19-May-2023**	06-Nov-2023	✓	**23-May-2023**	06-Nov-2023	✓
HDPE (no PTFE) (EP231X)							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums - Continued							
0902_MW001_230511, 0902_MW002_230511, 0902_MW004_230511, 0902_MW005_230511, 0902_MW012_230511, 0902_MW013_230511, 0902_MW014_230511, 0902_MW015_23011, 0902_MW016_230511, 0902_MW017_230511, 0902_MW069_230511	**11-May-2023**	**18-May-2023**	07-Nov-2023	✓	**22-May-2023**	07-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW078_230511, 0902_MW111_230511, 0902_MW112_230511, 0902_MW113_230511, 0902_MW114_230511, 0902_SW005_230511, 0902_SW007_230511, 0902_SW008_230511, 0902_SW009_230511, 0902_SW011_230511, 0902_SW013_230511, 0902_SW014_230511, 0902_QC113_230511, 0902_QC303_230511	**11-May-2023**	**19-May-2023**	07-Nov-2023	✓	**23-May-2023**	07-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW008_230511, 0902_MW009_230511, 0902_MW010_230511, 0902_MW024_230512, 0902_MW026_230512, 0902_MW028_230512, 0902_MW040_230511, 0902_MW042_230511, 0902_MW048_230511	**12-May-2023**	**18-May-2023**	08-Nov-2023	✓	**22-May-2023**	08-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_QC304_230512	**12-May-2023**	**19-May-2023**	08-Nov-2023	✓	**23-May-2023**	08-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW007_230515, 0902_MW032_230515, 0902_MW033_230515, 0902_MW034_230515, 0902_MW041_230515, 0902_MW043_230515, 0902_MW047_230515, 0902_MW050_230515, 0902_MW051_230515, 0902_MW052_230515, 0902_MW072_230515	**15-May-2023**	**18-May-2023**	11-Nov-2023	✓	**22-May-2023**	11-Nov-2023	✓
HDPE (no PTFE) (EP231X) 0902_MW073_230515, 0902_MW074_230515, 0902_QC305_230515	**15-May-2023**	**19-May-2023**	11-Nov-2023	✓	**23-May-2023**	11-Nov-2023	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Moisture Content	EA055	3	28	**10.71**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	4	37	**10.81**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	37	**5.41**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	13	133	**9.77**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	7	133	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	7	133	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	7	133	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055	SOIL	In house: A gravimetric procedure based on weight loss over a 12 hour drying period at 105-110 degrees C. This method is compliant with NEPM Schedule B(3).
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	SOIL	In-house: Analysis of soils by solvent extraction followed by LC-Electrospray-MS-MS, Negative Mode using MRM using internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to a portion of soil which is then extracted with MTBE and an ion pairing reagent. A portion of extract is exchanged into the analytical solvent mixture, combined with an equal volume reagent water and filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
QuECheRS Extraction of Solids	ORG71	SOIL	In house: Sequential extractions with Acetonitrile/Methanol by shaking. Extraction efficiency aided by the addition of salts under acidic conditions. Where relevant, interferences from co-extracted organics are removed with dispersive clean-up media (dSPE). The extract is either diluted or concentrated and exchanged into the analytical solvent.
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

QUALITY CONTROL REPORT

Work Order	: **ES2316196**	Page	: 1 of 39
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Contact	: Sepan Mahamad
Address	: PO BOX Q410 QVB POST OFFICE SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP_23	Date Samples Received	: 16-May-2023
Order number	: 60612562_5.1	Date Analysis Commenced	: 17-May-2023
C-O-C number	: 51920	Issue Date	: 26-May-2023
Sampler	: JACK RAWSTHORNE, NICOLA TOMLIN		
Site	: 0902		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 142		
No. of samples analysed	: 142		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Inorganics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5058063)									
ES2316178-003	Anonymous	EA055: Moisture Content	----	0.1	%	9.2	10.4	12.5	0% - 50%
ES2316196-090	0902_SD013_230511	EA055: Moisture Content	----	0.1	%	32.7	35.1	7.2	0% - 20%
EA055: Moisture Content (Dried @ 105-110°C) (QC Lot: 5058064)									
ES2316196-099	0902_SD024_230509	EA055: Moisture Content	----	0.1	%	24.8	30.1	19.5	0% - 20%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5054271)									
ES2316180-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0003	0.0004	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2316196-091	0902_SD014_230511	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	0.0003	0.0004	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0038	0.0034	8.8	0% - 50%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5058500)									
ES2316196-101	0902_SD035_230509	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	0.0008	0.0007	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5058500) - continued									
ES2316196-101	0902_SD035_230509	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
ES2316482-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0012	<0.0012	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0012	<0.0012	0.0	No Limit
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0012	<0.0012	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0012	<0.0012	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0012	<0.0012	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0012	<0.0012	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5054271)									
ES2316180-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2316196-091	0902_SD014_230511	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5058500)									
ES2316196-101	0902_SD035_230509	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5058500) - continued									
ES2316196-101	0902_SD035_230509	EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	<0.001	0.0	No Limit
ES2316482-001	Anonymous	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	0.0040	0.0037	5.7	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	0.0013	0.0013	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	0.0040	0.0037	5.7	No Limit
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	0.0035	0.0033	6.5	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	0.0026	0.0026	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	0.0040	0.0037	5.7	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	0.0037	0.0042	11.1	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	0.0454	0.0441	2.9	0% - 20%
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	0.0118	0.0094	22.7	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	0.110	0.107	2.6	0% - 20%
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.006	<0.006	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5054271)									
ES2316180-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2316196-091	0902_SD014_230511	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5058500)									

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5058500) - continued									
ES2316196-101	0902_SD035_230509	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	<0.0002	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2316482-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0012	<0.0012	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0012	<0.0012	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0012	<0.0012	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0031	<0.0031	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0031	<0.0031	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0031	<0.0031	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0031	<0.0031	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5054271)									
ES2316180-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2316196-091	0902_SD014_230511	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5054271) - continued									
ES2316196-091	0902_SD014_230511	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5058500)									
ES2316196-101	0902_SD035_230509	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	<0.0005	0.0	No Limit
ES2316482-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0012	<0.0012	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	0.0059	0.0053	11.8	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	0.0127	0.0125	1.7	0% - 50%
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	0.0296	0.0257	14.3	0% - 20%

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5054014)									
ES2316196-001	0902_MW001_230511	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.10	0.10	0.0	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2316196-011	0902_MW014_230511	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	1.59	1.57	1.1	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.14	0.15	0.0	0% - 50%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.42	0.43	0.0	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.32	0.33	0.0	0% - 50%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5054888)									
ES2316196-020	0902_MW025_230509	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.11	0.11	0.0	0% - 50%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5054888) - continued									
ES2316196-020	0902_MW025_230509	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2316196-030	0902_MW042_230511	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.06	0.04	41.5	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.10	0.07	35.4	0% - 50%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5055718)									
ES2316196-039	0902_MW053_230509	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	15.3	15.4	0.7	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.06	0.06	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	3.14	3.30	5.0	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	2.39	2.42	1.4	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.07	0.08	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2316196-049	0902_MW064_230509	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.43	0.51	16.5	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.13	0.14	10.4	0% - 50%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.09	0.10	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.06	0.08	18.2	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5057682)									
ES2316196-058	0902_MW073_230515	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	43.0	44.4	3.2	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	5.37	5.70	6.0	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	4.56	4.40	3.6	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	5.58	5.74	2.8	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	1.73	1.82	5.1	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2316196-064	0902_MW079_230510	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	1.39	1.36	1.7	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	1.04	1.01	3.1	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.14	0.14	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.15	0.14	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5057690)									
ES2316196-072	0902_MW107I_230509	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	61.8	65.0	5.1	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	70.2	72.3	3.0	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	10.8	10.4	4.0	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	11.7	13.1	11.5	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	3.23	3.38	4.7	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5057690) - continued									
ES2316196-102	0902_SW001_230508	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	3.12	3.10	0.6	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	17.0	19.2	11.9	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.56	0.57	0.0	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.50	0.49	0.0	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.43	0.44	0.0	0% - 20%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	0.17	0.25	36.6	0% - 50%
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5057692)									
ES2316196-111	0902_SW014_230511	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.23	0.27	16.2	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.45	0.52	14.3	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2316196-121	0902_SW035_230509	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5057700)									
ES2316196-133	0902_QC110_230510	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.03	0.04	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5054014)									
ES2316196-001	0902_MW001_230511	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2316196-011	0902_MW014_230511	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.07	0.07	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5054014) - continued									
ES2316196-011	0902_MW014_230511	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.34	0.34	0.0	0% - 50%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5054888)									
ES2316196-020	0902_MW025_230509	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.04	0.05	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2316196-030	0902_MW042_230511	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5055718)									
ES2316196-039	0902_MW053_230509	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.56	0.59	5.4	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.68	0.70	3.2	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	2.88	2.99	3.6	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.56	0.57	0.0	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5055718) - continued									
ES2316196-039	0902_MW053_230509	EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	0.4	0.4	0.0	No Limit
ES2316196-049	0902_MW064_230509	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5057682)									
ES2316196-058	0902_MW073_230515	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	2.42	2.32	4.2	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	2.00	1.94	3.5	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	10.2	10.4	2.3	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	1.02	0.97	4.7	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	5.3	4.9	9.3	0% - 20%
ES2316196-064	0902_MW079_230510	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.05	0.05	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.19	0.18	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5057690)									
ES2316196-072	0902_MW107I_230509	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	6.91	7.23	4.5	0% - 20%

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5057690) - continued									
ES2316196-072	0902_MW107I_230509	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	5.36	5.63	4.9	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	20.1	21.4	6.4	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	3.84	4.10	6.5	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	0.05	0.06	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	3.5	3.7	4.4	0% - 20%
ES2316196-102	0902_SW001_230508	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	3.69	3.40	8.0	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	2.68	2.42	10.5	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	4.14	3.56	15.2	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	2.89	2.56	11.9	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	3.60	3.38	6.4	0% - 20%
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	3.28	3.54	7.6	0% - 20%
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	1.63	1.96	18.2	0% - 20%
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	1.06	1.01	4.7	0% - 20%
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	0.19	0.22	11.2	0% - 50%
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	0.15	0.15	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	1.3	1.2	11.0	0% - 50%
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5057692)									
ES2316196-111	0902_SW014_230511	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2316196-121	0902_SW035_230509	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5057692) - continued									
ES2316196-121	0902_SW035_230509	EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5057700)									
ES2316196-133	0902_QC110_230510	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5054014)									
ES2316196-001	0902_MW001_230511	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2316196-011	0902_MW014_230511	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5054014) - continued									
ES2316196-011	0902_MW014_230511	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5054888)									
ES2316196-020	0902_MW025_230509	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2316196-030	0902_MW042_230511	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5055718)									
ES2316196-039	0902_MW053_230509	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5055718) - continued									
ES2316196-039	0902_MW053_230509	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2316196-049	0902_MW064_230509	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5057682)									
ES2316196-058	0902_MW073_230515	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2316196-064	0902_MW079_230510	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5057682) - continued									
ES2316196-064	0902_MW079_230510	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5057690)									
ES2316196-072	0902_MW107I_230509	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2316196-102	0902_SW001_230508	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	0.07	0.08	17.9	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5057692)									
ES2316196-111	0902_SW014_230511	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5057692) - continued									
ES2316196-111	0902_SW014_230511	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2316196-121	0902_SW035_230509	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5057700)									
ES2316196-133	0902_QC110_230510	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5054014)									
ES2316196-001	0902_MW001_230511	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5054014) - continued									
ES2316196-011	0902_MW014_230511	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5054888)									
ES2316196-020	0902_MW025_230509	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2316196-030	0902_MW042_230511	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5055718)									
ES2316196-039	0902_MW053_230509	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2316196-049	0902_MW064_230509	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5055718) - continued									
ES2316196-049	0902_MW064_230509	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5057682)									
ES2316196-058	0902_MW073_230515	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2316196-064	0902_MW079_230510	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5057690)									
ES2316196-072	0902_MW107I_230509	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2316196-102	0902_SW001_230508	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	0.96	1.00	4.5	0% - 50%
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	7.09	8.34	16.3	0% - 20%
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	0.12	0.12	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5057692)									
ES2316196-111	0902_SW014_230511	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5057692) - continued									
ES2316196-111	0902_SW014_230511	EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2316196-121	0902_SW035_230509	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5057700)									
ES2316196-133	0902_QC110_230510	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5054014)									
ES2316196-001	0902_MW001_230511	EP231X: Sum of PFAS	----	0.01	µg/L	0.13	0.13	0.0	0% - 50%
ES2316196-011	0902_MW014_230511	EP231X: Sum of PFAS	----	0.01	µg/L	2.98	2.99	0.3	0% - 20%
EP231P: PFAS Sums (QC Lot: 5054888)									
ES2316196-020	0902_MW025_230509	EP231X: Sum of PFAS	----	0.01	µg/L	0.23	0.24	4.3	0% - 20%
ES2316196-030	0902_MW042_230511	EP231X: Sum of PFAS	----	0.01	µg/L	0.16	0.11	37.0	0% - 50%
EP231P: PFAS Sums (QC Lot: 5055718)									
ES2316196-039	0902_MW053_230509	EP231X: Sum of PFAS	----	0.01	µg/L	26.0	26.5	1.8	0% - 20%
ES2316196-049	0902_MW064_230509	EP231X: Sum of PFAS	----	0.01	µg/L	0.74	0.86	15.0	0% - 20%
EP231P: PFAS Sums (QC Lot: 5057682)									
ES2316196-058	0902_MW073_230515	EP231X: Sum of PFAS	----	0.01	µg/L	81.2	82.6	1.7	0% - 20%
ES2316196-064	0902_MW079_230510	EP231X: Sum of PFAS	----	0.01	µg/L	3.06	2.98	2.6	0% - 20%
EP231P: PFAS Sums (QC Lot: 5057690)									
ES2316196-072	0902_MW107I_230509	EP231X: Sum of PFAS	----	0.01	µg/L	197	206	4.4	0% - 20%
ES2316196-102	0902_SW001_230508	EP231X: Sum of PFAS	----	0.01	µg/L	54.6	57.0	4.2	0% - 20%
EP231P: PFAS Sums (QC Lot: 5057692)									
ES2316196-111	0902_SW014_230511	EP231X: Sum of PFAS	----	0.01	µg/L	0.74	0.87	16.1	0% - 20%
ES2316196-121	0902_SW035_230509	EP231X: Sum of PFAS	----	0.01	µg/L	0.08	0.08	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231P: PFAS Sums (QC Lot: 5057700)									
ES2316196-133	0902_QC110_230510	EP231X: Sum of PFAS	----	0.01	µg/L	0.03	0.04	28.6	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5054271)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	114	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	89.6	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	80.6	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.2	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	92.4	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5058500)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.0002	mg/kg	<0.0002	0.00125 mg/kg	84.4	72.0	128
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	73.0	123
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.2	67.0	130
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	111	70.0	132
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	68.0	136
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	106	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5054271)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	88.2	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	120	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	111	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	71.0	131
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	93.8	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	79.5	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	76.3	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	119	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	82.4	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	81.6	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5058500)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.001	mg/kg	<0.001	0.00625 mg/kg	93.1	71.0	135
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	69.0	132
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.0002	mg/kg	<0.0002	0.00125 mg/kg	95.2	70.0	132
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	102	71.0	131

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5058500) - continued								
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.4	69.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.6	72.0	129
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	69.0	133
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	64.0	136
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.0002	mg/kg	<0.0002	0.00125 mg/kg	100	69.0	135
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0002	mg/kg	<0.0002	0.00125 mg/kg	99.2	66.0	139
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	101	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5054271)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	118	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	77.8	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	88.4	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	74.9	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	118	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	104	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5058500)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	103	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.0005	mg/kg	<0.0005	0.00312 mg/kg	113	71.6	129
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	95.2	69.8	131
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.0005	mg/kg	<0.0005	0.00312 mg/kg	101	68.7	130
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.0005	mg/kg	<0.0005	0.00312 mg/kg	109	65.1	134
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.0002	mg/kg	<0.0002	0.00125 mg/kg	98.8	63.0	144
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.0002	mg/kg	<0.0002	0.00125 mg/kg	105	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5054271)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	117	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	105	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	99.8	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	127	69.2	143

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5058500)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	98.8	62.0	145
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.0005	mg/kg	<0.0005	0.00125 mg/kg	110	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.0005	mg/kg	<0.0005	0.00125 mg/kg	100	65.0	137
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.0005	mg/kg	<0.0005	0.00125 mg/kg	90.8	69.2	143

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5054014)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	80.2	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	93.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	113	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	97.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	95.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5054888)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	90.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	80.2	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	89.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	83.6	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	76.0	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	85.2	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5055718)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	121	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	87.7	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	89.7	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	84.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	75.3	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	91.0	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5057682)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	79.8	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	91.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	88.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	107	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	92.4	65.0	140

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5057682) - continued								
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	105	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5057690)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	84.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	86.8	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	82.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	92.4	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	91.0	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5057692)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	96.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	110	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	105	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	107	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	104	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	100	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5057700)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	83.8	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	81.4	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	80.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	89.6	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	88.8	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	84.4	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5054014)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	92.2	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	108	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	108	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	104	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	89.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	108	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	110	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	126	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	86.7	71.0	132

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5054888)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	85.9	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	101	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	93.8	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	83.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	103	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	110	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	81.7	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5055718)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	82.4	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	120	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	97.9	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	82.0	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	82.1	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	97.0	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	97.8	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	96.5	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	72.0	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5057682)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	77.4	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	93.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	81.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	98.8	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	105	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	117	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	90.8	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	119	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	127	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	122	65.0	144

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5057682) - continued								
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	115	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5057690)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	80.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	91.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	96.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	98.8	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	103	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	96.4	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.2	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	92.8	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.0	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	82.7	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5057692)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	89.9	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	109	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	102	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	116	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	108	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	108	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	103	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	106	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	98.2	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	102	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	84.0	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5057700)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	76.6	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	89.0	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	87.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	91.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	84.4	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	93.8	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	86.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	85.0	69.0	133

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5057700) - continued								
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	86.6	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	88.6	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	92.6	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5054014)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	104	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	84.1	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	89.5	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	94.7	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	80.7	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	89.6	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	99.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5054888)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	105	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	89.9	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	92.8	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	89.6	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	78.4	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	84.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	92.0	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5055718)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	104	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	95.8	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	91.0	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	76.8	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	76.5	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	100	65.0	136

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report		
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5055718) - continued								
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	95.7	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5057682)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	92.3	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	120	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	97.8	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	86.4	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	112	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	115	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5057690)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	101	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	91.6	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	90.6	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	81.7	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	81.3	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	91.2	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	88.2	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5057692)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	104	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	103	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	95.7	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	87.1	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	90.6	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	84.6	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	101	61.0	135

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
				Result	Concentration	LCS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5057700)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	92.0	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	80.4	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	84.7	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	81.3	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	88.1	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	84.0	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	93.0	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5054014)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	106	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	99.2	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	107	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	105	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5054888)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	98.2	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	108	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	89.6	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	91.6	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5055718)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	107	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	106	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	120	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	120	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5057682)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	93.6	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	110	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	113	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	121	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5057690)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	90.4	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	97.0	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	101	67.0	138

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5057690) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	81.2	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5057692)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	96.4	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	117	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	125	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	112	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5057700)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	87.4	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	103	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	107	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	80.0	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5054271)							
ES2316180-001	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	124	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	81.5	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	86.9	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	94.3	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	99.7	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	110	59.0	134
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5058500)							
ES2316196-101	0902_SD035_230509	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.00125 mg/kg	80.8	72.0	128
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.00125 mg/kg	95.2	73.0	123
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.00125 mg/kg	83.2	67.0	130
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.00125 mg/kg	112	70.0	132
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.00125 mg/kg	90.8	68.0	136
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.00125 mg/kg	104	59.0	134
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5054271)							
ES2316180-001	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	91.9	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	126	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	112	70.0	132

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5054271) - continued							
ES2316180-001	Anonymous	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	99.1	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	94.7	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	81.2	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	80.2	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	107	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	125	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	84.2	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	85.8	69.0	133
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5058500)							
ES2316196-101	0902_SD035_230509	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.00625 mg/kg	87.0	71.0	135
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.00125 mg/kg	92.8	69.0	132
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.00125 mg/kg	98.0	70.0	132
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.00125 mg/kg	95.6	71.0	131
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.00125 mg/kg	104	69.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.00125 mg/kg	97.6	72.0	129
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.00125 mg/kg	102	69.0	133
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.00125 mg/kg	97.6	64.0	136
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.00125 mg/kg	99.6	69.0	135
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.00125 mg/kg	96.4	66.0	139
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.00312 mg/kg	99.2	69.0	133
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5054271)							
ES2316180-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	124	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	124	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	80.9	69.8	131
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	104	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	72.1	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	114	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	89.6	61.0	139
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5058500)							
ES2316196-101	0902_SD035_230509	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.00125 mg/kg	96.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.00312 mg/kg	103	71.6	129
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.00312 mg/kg	94.7	69.8	131

Sub-Matrix: **SOIL**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5058500) - continued							
ES2316196-101	0902_SD035_230509	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.00312 mg/kg	92.9	68.7	130
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.00312 mg/kg	96.3	65.1	134
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.00125 mg/kg	98.0	63.0	144
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.00125 mg/kg	98.8	61.0	139
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5054271)							
ES2316180-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	119	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	92.5	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	93.7	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	119	69.2	143
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5058500)							
ES2316196-101	0902_SD035_230509	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.00125 mg/kg	99.2	62.0	145
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.00125 mg/kg	103	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.00125 mg/kg	93.2	65.0	137
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.00125 mg/kg	94.8	69.2	143

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	Matrix Spike (MS) Report: SpikeRecovery(%) MS	Matrix Spike (MS) Report: Acceptable Limits (%) Low	Matrix Spike (MS) Report: Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5054014)							
ES2316196-002	0902_MW002_230511	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	106	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	79.0	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	89.6	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	101	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	83.6	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	99.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5054888)							
ES2316196-021	0902_MW026_230512	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	102	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	77.6	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	# Not Determined	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	96.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	91.0	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	98.8	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5055718)							

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5055718) - continued							
ES2316196-040	0902_MW054_230509	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	126	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	80.2	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	102	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	83.5	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	80.3	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	89.2	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5057682)							
ES2316196-060	0902_MW075_230508	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	72.4	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	84.2	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	83.2	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	103	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	89.0	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	95.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5057690)							
ES2316196-073	0902_MW108_230508	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	95.6	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	100	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	113	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	110	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	74.8	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	91.6	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5057692)							
ES2316196-112	0902_SW015_230510	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	103	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	104	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	110	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	113	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	128	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	103	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5057700)							
ES2316196-134	0902_QC111_230510	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	81.0	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	83.2	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	# Not Determined	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	97.4	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	# Not Determined	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	104	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5054014)							
ES2316196-002	0902_MW002_230511	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	88.5	73.0	129

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5054014) - continued							
ES2316196-002	0902_MW002_230511	EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	106	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	101	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	105	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	99.2	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	104	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	88.0	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	106	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	118	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	135	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	95.4	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5054888)							
ES2316196-021	0902_MW026_230512	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	86.8	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	105	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	108	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	105	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	103	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	104	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	89.2	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	103	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	121	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	119	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	92.1	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5055718)							
ES2316196-040	0902_MW054_230509	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	81.1	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	129	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	111	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	116	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	99.5	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	83.5	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	87.3	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	92.1	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	98.0	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	96.8	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	74.1	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5057682)							
ES2316196-060	0902_MW075_230508	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	75.1	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	92.4	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	75.2	72.0	129

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5057682) - continued							
ES2316196-060	0902_MW075_230508	EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	92.8	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	101	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	107	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	89.2	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	101	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	115	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	113	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	101	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5057690)							
ES2316196-073	0902_MW108_230508	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	78.4	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	104	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	110	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	95.8	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	99.6	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	102	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	91.0	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	89.8	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	90.2	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	96.6	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	80.6	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5057692)							
ES2316196-112	0902_SW015_230510	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	86.9	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	109	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	106	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	113	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	111	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	112	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	102	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	110	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	103	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	102	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	92.0	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5057700)							
ES2316196-134	0902_QC111_230510	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	86.9	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	100	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	90.2	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	98.0	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	101	71.0	133

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5057700) - continued							
ES2316196-134	0902_QC111_230510	EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	109	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	105	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	100	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	104	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	107	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	88.0	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5054014)							
ES2316196-002	0902_MW002_230511	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	108	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	79.5	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	93.7	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	91.1	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	79.9	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	96.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	107	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5054888)							
ES2316196-021	0902_MW026_230512	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	109	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	82.9	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	81.3	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	95.0	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	82.2	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	94.0	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	104	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5055718)							
ES2316196-040	0902_MW054_230509	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	112	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	99.8	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	98.4	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	84.4	66.0	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5055718) - continued							
ES2316196-040	0902_MW054_230509	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	81.4	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	101	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	98.4	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5057682)							
ES2316196-060	0902_MW075_230508	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	93.8	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	79.9	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	110	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	89.2	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	75.4	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	95.6	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	111	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5057690)							
ES2316196-073	0902_MW108_230508	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	99.0	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	74.1	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	77.4	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	83.8	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	81.2	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	91.6	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	87.6	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5057692)							
ES2316196-112	0902_SW015_230510	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	107	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	90.2	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	96.2	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	97.4	66.0	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5057692) - continued							
ES2316196-112	0902_SW015_230510	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	91.7	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	85.6	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	101	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5057700)							
ES2316196-134	0902_QC111_230510	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	107	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	93.1	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	89.6	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	100	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	85.8	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	89.0	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	96.4	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5054014)							
ES2316196-002	0902_MW002_230511	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	113	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	104	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	103	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	102	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5054888)							
ES2316196-021	0902_MW026_230512	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	112	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	115	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	115	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	93.2	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5055718)							
ES2316196-040	0902_MW054_230509	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	122	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	119	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	124	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	101	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5057682)							
ES2316196-060	0902_MW075_230508	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	85.6	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	104	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	105	67.0	138

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5057682) - continued							
ES2316196-060	0902_MW075_230508	EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	105	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5057690)							
ES2316196-073	0902_MW108_230508	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	82.8	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	94.8	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	95.0	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	82.6	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5057692)							
ES2316196-112	0902_SW015_230510	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	102	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	124	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	119	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	104	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5057700)							
ES2316196-134	0902_QC111_230510	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	108	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	125	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	117	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	92.8	71.4	144

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2316196**		
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Contact	: Sepan Mahamad
Address	: PO BOX Q410 QVB POST OFFICE SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: jessica.roy@aecom.com	E-mail	: Sepan.Mahamad@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP_23	Page	: 1 of 6
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 51920	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0902		
Sampler	: JACK RAWSTHORNE, NICOLA TOMLIN		

Dates

Date Samples Received	: 16-May-2023 14:50	Issue Date	: 26-May-2023
Client Requested Due Date	: 23-May-2023	Scheduled Reporting Date	: **23-May-2023**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Intact.
No. of coolers/boxes	: 3	Temperature	: 5.1'C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 142 / 142

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- This is an updated SRN to update sample times on samples #15, 26, 42, 62, 116, 124 as well as sampler details.
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **SOIL**

Laboratory sample ID	Sampling date / time	Sample ID	SOIL - EA055-103 Moisture Content	SOIL - EP231X (solids) PFAS - Full Suite (28 analytes)
ES2316196-082	08-May-2023 14:18	0902_SD001_230508	✓	✓
ES2316196-083	08-May-2023 09:50	0902_SD002_230508	✓	✓
ES2316196-084	08-May-2023 10:07	0902_SD003_230508	✓	✓
ES2316196-085	11-May-2023 11:03	0902_SD005_230511	✓	✓
ES2316196-086	11-May-2023 11:40	0902_SD007_230511	✓	✓
ES2316196-087	11-May-2023 14:52	0902_SD008_230511	✓	✓
ES2316196-088	11-May-2023 15:13	0902_SD009_230511	✓	✓
ES2316196-089	11-May-2023 12:19	0902_SD011_230511	✓	✓
ES2316196-090	11-May-2023 12:40	0902_SD013_230511	✓	✓
ES2316196-091	11-May-2023 10:09	0902_SD014_230511	✓	✓
ES2316196-092	10-May-2023 10:22	0902_SD015_230510	✓	✓
ES2316196-093	10-May-2023 09:59	0902_SD016_230510	✓	✓
ES2316196-094	10-May-2023 08:32	0902_SD018_230510	✓	✓
ES2316196-095	10-May-2023 10:50	0902_SD019_230510	✓	✓
ES2316196-096	10-May-2023 11:15	0902_SD020_230510	✓	✓
ES2316196-097	09-May-2023 13:32	0902_SD022_230509	✓	✓
ES2316196-098	10-May-2023 08:50	0902_SD023_230510	✓	✓
ES2316196-099	09-May-2023 15:11	0902_SD024_230509	✓	✓
ES2316196-100	10-May-2023 07:50	0902_SD030_230510	✓	✓
ES2316196-101	09-May-2023 14:37	0902_SD035_230509	✓	✓
ES2316196-124	08-May-2023 14:20	0902_QC101_230508	✓	✓
ES2316196-129	09-May-2023 14:42	0902_QC106_230509	✓	✓
ES2316196-131	10-May-2023 07:51	0902_QC108_230510	✓	✓

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - EP231X PFAS - Full Suite (28 analytes)
ES2316196-001	11-May-2023 14:44	0902_MW001_230511	✓
ES2316196-002	11-May-2023 11:19	0902_MW002_230511	✓
ES2316196-003	11-May-2023 10:32	0902_MW004_230511	✓
ES2316196-004	11-May-2023 14:17	0902_MW005_230511	✓
ES2316196-005	15-May-2023 12:33	0902_MW007_230515	✓
ES2316196-006	12-May-2023 11:36	0902_MW008_230511	✓
ES2316196-007	12-May-2023 11:46	0902_MW009_230511	✓
ES2316196-008	12-May-2023 11:58	0902_MW010_230511	✓
ES2316196-009	11-May-2023 16:01	0902_MW012_230511	✓
ES2316196-010	11-May-2023 12:28	0902_MW013_230511	✓
ES2316196-011	11-May-2023 13:05	0902_MW014_230511	✓
ES2316196-012	11-May-2023 13:15	0902_MW015_23011	✓
ES2316196-013	11-May-2023 09:56	0902_MW016_230511	✓
ES2316196-014	11-May-2023 12:52	0902_MW017_230511	✓
ES2316196-015	08-May-2023 16:15	0902_MW020_230508	✓
ES2316196-016	08-May-2023 09:28	0902_MW021_230508	✓
ES2316196-017	08-May-2023 10:40	0902_MW022_230508	✓
ES2316196-018	08-May-2023 11:08	0902_MW023_230508	✓
ES2316196-019	12-May-2023 07:57	0902_MW024_230512	✓
ES2316196-020	09-May-2023 10:04	0902_MW025_230509	✓
ES2316196-021	12-May-2023 08:22	0902_MW026_230512	✓
ES2316196-022	12-May-2023 10:05	0902_MW028_230512	✓
ES2316196-023	08-May-2023 13:34	0902_MW030_230508	✓
ES2316196-024	15-May-2023 15:20	0902_MW032_230515	✓
ES2316196-025	15-May-2023 15:11	0902_MW033_230515	✓
ES2316196-026	15-May-2023 11:00	0902_MW034_230515	✓
ES2316196-027	08-May-2023 13:01	0902_MW036_230508	✓
ES2316196-028	12-May-2023 10:22	0902_MW040_230511	✓
ES2316196-029	15-May-2023 12:09	0902_MW041_230515	✓
ES2316196-030	12-May-2023 10:49	0902_MW042_230511	✓
ES2316196-031	15-May-2023 12:22	0902_MW043_230515	✓
ES2316196-032	09-May-2023 10:33	0902_MW045_230509	✓
ES2316196-033	09-May-2023 10:22	0902_MW046_230509	✓
ES2316196-034	15-May-2023 12:45	0902_MW047_230515	✓
ES2316196-035	12-May-2023 12:16	0902_MW048_230511	✓
ES2316196-036	15-May-2023 13:07	0902_MW050_230515	✓
ES2316196-037	15-May-2023 13:01	0902_MW051_230515	✓
ES2316196-038	15-May-2023 12:54	0902_MW052_230515	✓
ES2316196-039	09-May-2023 15:48	0902_MW053_230509	✓
ES2316196-040	09-May-2023 16:49	0902_MW054_230509	✓
ES2316196-041	09-May-2023 16:10	0902_MW056_230509	✓

			WATER - EP231X PFAS - Full Suite (28 analytes)
ES2316196-042	09-May-2023 17:00	0902_MW057_230509	✓
ES2316196-043	09-May-2023 16:38	0902_MW058_230509	✓
ES2316196-044	09-May-2023 16:19	0902_MW059_230509	✓
ES2316196-045	09-May-2023 12:16	0902_MW060_230509	✓
ES2316196-046	09-May-2023 12:08	0902_MW061_230509	✓
ES2316196-047	09-May-2023 09:17	0902_MW062_230509	✓
ES2316196-048	09-May-2023 09:43	0902_MW063_230509	✓
ES2316196-049	09-May-2023 11:49	0902_MW064_230509	✓
ES2316196-050	09-May-2023 11:30	0902_MW065_230509	✓
ES2316196-051	09-May-2023 11:09	0902_MW066_230509	✓
ES2316196-052	09-May-2023 09:00	0902_MW067_230509	✓
ES2316196-053	09-May-2023 08:10	0902_MW068_230509	✓
ES2316196-054	11-May-2023 06:59	0902_MW069_230511	✓
ES2316196-055	09-May-2023 08:31	0902_MW070_230509	✓
ES2316196-056	09-May-2023 08:45	0902_MW071_230509	✓
ES2316196-057	15-May-2023 14:37	0902_MW072_230515	✓
ES2316196-058	15-May-2023 14:48	0902_MW073_230515	✓
ES2316196-059	15-May-2023 10:45	0902_MW074_230515	✓
ES2316196-060	08-May-2023 12:28	0902_MW075_230508	✓
ES2316196-061	10-May-2023 11:56	0902_MW076_230510	✓
ES2316196-062	10-May-2023 12:21	0902_MW077_230510	✓
ES2316196-063	11-May-2023 07:46	0902_MW078_230511	✓
ES2316196-064	10-May-2023 13:53	0902_MW079_230510	✓
ES2316196-065	08-May-2023 16:33	0902_MW080_230508	✓
ES2316196-066	09-May-2023 13:24	0902_MW081_230509	✓
ES2316196-067	09-May-2023 14:11	0902_MW082_230509	✓
ES2316196-068	10-May-2023 09:11	0902_MW091_230510	✓
ES2316196-069	10-May-2023 09:30	0902_MW092_230510	✓
ES2316196-070	08-May-2023 16:44	0902_MW106_230508	✓
ES2316196-071	08-May-2023 15:08	0902_MW107D_230508	✓
ES2316196-072	09-May-2023 16:29	0902_MW107I_230509	✓
ES2316196-073	08-May-2023 13:25	0902_MW108_230508	✓
ES2316196-074	08-May-2023 10:24	0902_MW109_230508	✓
ES2316196-075	08-May-2023 11:28	0902_MW110_230508	✓
ES2316196-076	11-May-2023 10:18	0902_MW111_230511	✓
ES2316196-077	11-May-2023 10:36	0902_MW112_230511	✓
ES2316196-078	11-May-2023 11:28	0902_MW113_230511	✓
ES2316196-079	11-May-2023 14:36	0902_MW114_230511	✓
ES2316196-080	10-May-2023 14:27	0902_MW143_230510	✓
ES2316196-081	10-May-2023 10:25	0902_MW144_230510	✓
ES2316196-102	08-May-2023 14:16	0902_SW001_230508	✓

			WATER - EP231X PFAS - Full Suite (28 analytes)
ES2316196-103	08-May-2023 09:45	0902_SW002_230508	✓
ES2316196-104	08-May-2023 10:00	0902_SW003_230508	✓
ES2316196-105	11-May-2023 11:03	0902_SW005_230511	✓
ES2316196-106	11-May-2023 11:37	0902_SW007_230511	✓
ES2316196-107	11-May-2023 14:52	0902_SW008_230511	✓
ES2316196-108	11-May-2023 15:13	0902_SW009_230511	✓
ES2316196-109	11-May-2023 12:17	0902_SW011_230511	✓
ES2316196-110	11-May-2023 12:41	0902_SW013_230511	✓
ES2316196-111	11-May-2023 10:07	0902_SW014_230511	✓
ES2316196-112	10-May-2023 10:21	0902_SW015_230510	✓
ES2316196-113	10-May-2023 10:00	0902_SW016_230510	✓
ES2316196-114	10-May-2023 08:31	0902_SW018_230510	✓
ES2316196-115	10-May-2023 10:49	0902_SW019_230510	✓
ES2316196-116	10-May-2023 11:15	0902_SW020_230510	✓
ES2316196-117	09-May-2023 13:28	0902_SW022_230509	✓
ES2316196-118	10-May-2023 08:51	0902_SW023_230510	✓
ES2316196-119	09-May-2023 15:08	0902_SW024_230509	✓
ES2316196-120	10-May-2023 07:52	0902_SW030_230510	✓
ES2316196-121	09-May-2023 14:36	0902_SW035_230509	✓
ES2316196-122	08-May-2023 10:59	0902_SW037_230508	✓
ES2316196-123	08-May-2023 12:31	0902_QC100_230508	✓
ES2316196-125	08-May-2023 15:10	0902_QC102_230508	✓
ES2316196-126	09-May-2023 08:15	0902_QC103_230509	✓
ES2316196-127	09-May-2023 09:44	0902_QC104_230509	✓
ES2316196-128	09-May-2023 13:30	0902_QC105_230509	✓
ES2316196-130	09-May-2023 15:11	0902_QC107_230509	✓
ES2316196-132	10-May-2023 08:31	0902_QC109_230510	✓
ES2316196-133	10-May-2023 11:56	0902_QC110_230510	✓
ES2316196-134	10-May-2023 13:54	0902_QC111_230510	✓
ES2316196-135	10-May-2023 14:28	0902_QC112_230510	✓
ES2316196-136	11-May-2023 06:55	0902_QC113_230511	✓
ES2316196-137	08-May-2023 18:16	0902_QC300_230508	✓
ES2316196-138	09-May-2023 17:24	0902_QC301_230509	✓
ES2316196-139	10-May-2023 15:17	0902_QC302_230510	✓
ES2316196-140	11-May-2023 15:34	0902_QC303_230511	✓
ES2316196-141	12-May-2023 13:53	0902_QC304_230512	✓
ES2316196-142	15-May-2023 13:55	0902_QC305_230515	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE

- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com

DERP ESDAT REPORTS

- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Geoff.Tredinnick@aecom.com

JESSICA ROY

- *AU Certificate of Analysis - NATA (COA)	Email	jessica.roy@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jessica.roy@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jessica.roy@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	jessica.roy@aecom.com
- Chain of Custody (CoC) (COC)	Email	jessica.roy@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	jessica.roy@aecom.com
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	jessica.roy@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	jessica.roy@aecom.com
- EDI Format - XTab (XTAB)	Email	jessica.roy@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	jessica.roy@aecom.com

CHAIN OF CUSTODY

(ALS) COC#: 519[illegible]0 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Jach 16/05/23 1450	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW001_230511		11/05/2023 02:44 PM	WATER	ALS: 4 Non ALS: 0	No		X		
002	0902_MW002_230511		11/05/2023 11:19 AM	WATER	ALS: 4 Non ALS: 0	No		X		
003	0902_MW004_230511		11/05/2023 10:32 AM	WATER	ALS: 4 Non ALS: 0	No		X		
004	0902_MW005_230511		11/05/2023 02:17 PM	WATER	ALS: 4 Non ALS: 0	No		X		
005	0902_MW007_230515		15/05/2023 12:33 PM	WATER	ALS: 4 Non ALS: 0	No		X		
006	0902_MW008_230511		12/05/2023 11:36 AM	WATER	ALS: 4 Non ALS: 0	No		X		
007	0902_MW009_230511		12/05/2023 11:46 AM	WATER	ALS: 4 Non ALS: 0	No		X		
008	0902_MW010_230511		12/05/2023 11:58 AM	WATER	ALS: 4 Non ALS: 0	No		X		
009	0902_MW012_230511		11/05/2023 04:01 PM	WATER	ALS: 4 Non ALS: 0	No		X		

Environmental Division
Sydney
Work Order Reference
ES2316196

Telephone : +61-2-8784 8555

CHAIN OF CUSTODY

COC#: 51929 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Jack 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0902_MW013_230511		11/05/2023 12:28 PM	WATER	ALS: 4 Non ALS: 0	No		X		
011	0902_MW014_230511		11/05/2023 01:05 PM	WATER	ALS: 4 Non ALS: 0	No		X		
012	0902_MW015_23011		11/05/2023 01:15 PM	WATER	ALS: 4 Non ALS: 0	No		X		
013	0902_MW016_230511		11/05/2023 09:56 AM	WATER	ALS: 4 Non ALS: 0	No		X		
014	0902_MW017_230511		11/05/2023 12:52 PM	WATER	ALS: 4 Non ALS: 0	No		X		
015	0902_MW020_230508		08/05/2023 04:23 PM	WATER	ALS: 3 Non ALS: 0	No		X		Only 3 bottles
016	0902_MW021_230508		08/05/2023 09:28 AM	WATER	ALS: 4 Non ALS: 0	No		X		
017	0902_MW022_230508		08/05/2023 10:40 AM	WATER	ALS: 4 Non ALS: 0	No		X		
018	0902_MW023_230508		08/05/2023 11:08 AM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 51920 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0902_MW024_230512		12/05/2023 07:57 AM	WATER	ALS: 4 Non ALS: 0	No		X		
020	0902_MW025_230509		09/05/2023 10:04 AM	WATER	ALS: 4 Non ALS: 0	No		X		
021	0902_MW026_230512		12/05/2023 08:22 AM	WATER	ALS: 4 Non ALS: 0	No		X		
022	0902_MW028_230512		12/05/2023 10:05 AM	WATER	ALS: 4 Non ALS: 0	No		X		
023	0902_MW030_230508		08/05/2023 01:34 PM	WATER	ALS: 4 Non ALS: 0	No		X		
024	0902_MW032_230515		15/05/2023 03:20 PM	WATER	ALS: 4 Non ALS: 0	No		X		
025	0902_MW033_230515		15/05/2023 03:11 PM	WATER	ALS: 4 Non ALS: 0	No		X		
026	0902_MW034_230515		15/05/2023 11:20 AM	WATER	ALS: 4 Non ALS: 0	No		X		
027	0902_MW036_230508		08/05/2023 01:01 PM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

COC#: 51920 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
028	0902_MW040_230511		12/05/2023 10:22 AM	WATER	ALS: 4 Non ALS: 0	No		X		
029	0902_MW041_230515		15/05/2023 12:09 PM	WATER	ALS: 4 Non ALS: 0	No		X		
030	0902_MW042_230511		12/05/2023 10:49 AM	WATER	ALS: 4 Non ALS: 0	No		X		
031	0902_MW043_230515		15/05/2023 12:22 PM	WATER	ALS: 4 Non ALS: 0	No		X		
032	0902_MW045_230509		09/05/2023 10:33 AM	WATER	ALS: 4 Non ALS: 0	No		X		
033	0902_MW046_230509		09/05/2023 10:22 AM	WATER	ALS: 4 Non ALS: 0	No		X		
034	0902_MW047_230515		15/05/2023 12:45 PM	WATER	ALS: 4 Non ALS: 0	No		X		
035	0902_MW048_230511		12/05/2023 12:16 PM	WATER	ALS: 4 Non ALS: 0	No		X		
036	0902_MW050_230515		15/05/2023 01:07 PM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

COC#: 51920 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Jack 16/05/23 1450	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
037	0902_MW051_230515		15/05/2023 01:01 PM	WATER	ALS: 4 Non ALS: 0	No		X		
038	0902_MW052_230515		15/05/2023 12:54 PM	WATER	ALS: 4 Non ALS: 0	No		X		
039	0902_MW053_230509		09/05/2023 03:48 PM	WATER	ALS: 4 Non ALS: 0	No		X		
040	0902_MW054_230509		09/05/2023 04:49 PM	WATER	ALS: 4 Non ALS: 0	No		X		
041	0902_MW056_230509		09/05/2023 04:10 PM	WATER	ALS: 4 Non ALS: 0	No		X		
042	0902_MW057_230509		09/05/2023 04:05 PM	WATER	ALS: 4 Non ALS: 0	No		X		
043	0902_MW058_230509		09/05/2023 04:38 PM	WATER	ALS: 4 Non ALS: 0	No		X		
044	0902_MW059_230509		09/05/2023 04:19 PM	WATER	ALS: 4 Non ALS: 0	No		X		
045	0902_MW060_230509		09/05/2023 12:16 PM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 51920 ALS Laboratory: ES Sydney

CLIENT: , AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Jack 16/05/23 1450	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU002 7

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
046	0902_MW061_230509		09/05/2023 12:08 PM	WATER	ALS: 3 Non ALS: 0	No		X		Only 3 bottles
047	0902_MW062_230509		09/05/2023 09:17 AM	WATER	ALS: 4 Non ALS: 0	No		X		
048	0902_MW063_230509		09/05/2023 09:43 AM	WATER	ALS: 4 Non ALS: 0	No		X		
049	0902_MW064_230509		09/05/2023 11:49 AM	WATER	ALS: 4 Non ALS: 0	No		X		
050	0902_MW065_230509		09/05/2023 11:30 AM	WATER	ALS: 4 Non ALS: 0	No		X		
051	0902_MW066_230509		09/05/2023 11:09 AM	WATER	ALS: 4 Non ALS: 0	No		X		
052	0902_MW067_230509		09/05/2023 09:00 AM	WATER	ALS: 4 Non ALS: 0	No		X		
053	0902_MW068_230509		09/05/2023 08:10 AM	WATER	ALS: 4 Non ALS: 0	No		X		
054	0902_MW069_230511		11/05/2023 06:59 AM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 51920 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
055	0902_MW070_230509		09/05/2023 08:31 AM	WATER	ALS: 4 Non ALS: 0	No		X		
056	0902_MW071_230509		09/05/2023 08:45 AM	WATER	ALS: 4 Non ALS: 0	No		X		
057	0902_MW072_230515		15/05/2023 02:37 PM	WATER	ALS: 4 Non ALS: 0	No		X		
058	0902_MW073_230515		15/05/2023 02:48 PM	WATER	ALS: 4 Non ALS: 0	No		X		
059	0902_MW074_230515		15/05/2023 10:45 AM	WATER	ALS: 4 Non ALS: 0	No		X		
060	0902_MW075_230508		08/05/2023 12:28 PM	WATER	ALS: 4 Non ALS: 0	No		X		
061	0902_MW076_230510		10/05/2023 11:56 AM	WATER	ALS: 4 Non ALS: 0	No		X		
062	0902_MW077_230510		10/05/2023 12:30 PM	WATER	ALS: 4 Non ALS: 0	No		X		
063	0902_MW078_230511		11/05/2023 07:46 AM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 51920 ALS Laboratory: ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
064	0902_MW079_230510		10/05/2023 01:53 PM	WATER	ALS: 4 Non ALS: 0	No		X		
065	0902_MW080_230508		08/05/2023 04:33 PM	WATER	ALS: 4 Non ALS: 0	No		X		
066	0902_MW081_230509		09/05/2023 01:24 PM	WATER	ALS: 4 Non ALS: 0	No		X		
067	0902_MW082_230509		09/05/2023 02:11 PM	WATER	ALS: 4 Non ALS: 0	No		X		
068	0902_MW091_230510		10/05/2023 09:11 AM	WATER	ALS: 4 Non ALS: 0	No		X		
069	0902_MW092_230510		10/05/2023 09:30 AM	WATER	ALS: 4 Non ALS: 0	No		X		
070	0902_MW106_230508		08/05/2023 04:44 PM	WATER	ALS: 4 Non ALS: 0	No		X		
071	0902_MW107D_230508		08/05/2023 03:08 PM	WATER	ALS: 4 Non ALS: 0	No		X		
072	0902_MW107I_230509		09/05/2023 04:29 PM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 51920 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
073	0902_MW108_230508		08/05/2023 01:25 PM	WATER	ALS: 4 Non ALS: 0	No		X		
074	0902_MW109_230508		08/05/2023 10:24 AM	WATER	ALS: 4 Non ALS: 0	No		X		
075	0902_MW110_230508		08/05/2023 11:28 AM	WATER	ALS: 4 Non ALS: 0	No		X		
076	0902_MW111_230511		11/05/2023 10:18 AM	WATER	ALS: 4 Non ALS: 0	No		X		
077	0902_MW112_230511		11/05/2023 10:36 AM	WATER	ALS: 4 Non ALS: 0	No		X		
078	0902_MW113_230511		11/05/2023 11:28 AM	WATER	ALS: 3 Non ALS: 0	No		X		
079	0902_MW114_230511		11/05/2023 02:36 PM	WATER	ALS: 4 Non ALS: 0	No		X		
080	0902_MW143_230510		10/05/2023 02:27 PM	WATER	ALS: 4 Non ALS: 0	No		X		
081	0902_MW144_230510		10/05/2023 10:25 AM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

COC#: 51920 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 16/05/24 1450	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
082	0902_SD001_230508		08/05/2023 02:18 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
083	0902_SD002_230508		08/05/2023 09:50 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
084	0902_SD003_230508		08/05/2023 10:07 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
085	0902_SD005_230511		11/05/2023 11:03 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
086	0902_SD007_230511		11/05/2023 11:40 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
087	0902_SD008_230511		11/05/2023 02:52 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
088	0902_SD009_230511		11/05/2023 03:13 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
089	0902_SD011_230511		11/05/2023 12:19 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
090	0902_SD013_230511		11/05/2023 12:40 PM	SOIL	ALS: 1 Non ALS: 0	No	X			

CHAIN OF CUSTODY

COC#: 51920 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
091	0902_SD014_230511		11/05/2023 10:09 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
092	0902_SD015_230510		10/05/2023 10:22 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
093	0902_SD016_230510		10/05/2023 09:59 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
094	0902_SD018_230510		10/05/2023 08:32 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
095	0902_SD019_230510		10/05/2023 10:50 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
096	0902_SD020_230510		10/05/2023 11:15 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
097	0902_SD022_230509		09/05/2023 01:32 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
098	0902_SD023_230510		10/05/2023 08:50 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
099	0902_SD024_230509		09/05/2023 03:11 PM	SOIL	ALS: 1 Non ALS: 0	No	X			

CHAIN OF CUSTODY

(ALS) COC#: 51920 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: , AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
100	0902_SD030_230510		10/05/2023 07:50 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
101	0902_SD035_230509		09/05/2023 02:37 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
102	0902_SW001_230508		08/05/2023 02:16 PM	WATER	ALS: 4 Non ALS: 0	No		X		
103	0902_SW002_230508		08/05/2023 09:45 AM	WATER	ALS: 4 Non ALS: 0	No		X		
104	0902_SW003_230508		08/05/2023 10:00 AM	WATER	ALS: 4 Non ALS: 0	No		X		
105	0902_SW005_230511		11/05/2023 11:03 AM	WATER	ALS: 4 Non ALS: 0	No		X		
106	0902_SW007_230511		11/05/2023 11:37 AM	WATER	ALS: 4 Non ALS: 0	No		X		
107	0902_SW008_230511		11/05/2023 02:52 PM	WATER	ALS: 4 Non ALS: 0	No		X		
108	0902_SW009_230511		11/05/2023 03:13 PM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

COC#: 51920 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
109	0902_SW011_230511		11/05/2023 12:17 PM	WATER	ALS: 4 Non ALS: 0	No		X		
110	0902_SW013_230511		11/05/2023 12:41 PM	WATER	ALS: 4 Non ALS: 0	No		X		
111	0902_SW014_230511		11/05/2023 10:07 AM	WATER	ALS: 4 Non ALS: 0	No		X		
112	0902_SW015_230510		10/05/2023 10:21 AM	WATER	ALS: 4 Non ALS: 0	No		X		
113	0902_SW016_230510		10/05/2023 10:00 AM	WATER	ALS: 4 Non ALS: 0	No		X		
114	0902_SW018_230510		10/05/2023 08:31 AM	WATER	ALS: 4 Non ALS: 0	No		X		
115	0902_SW019_230510		10/05/2023 10:49 AM	WATER	ALS: 4 Non ALS: 0	No		X		
116	0902_SW020_230510		10/05/2023 11:24 AM	WATER	ALS: 4 Non ALS: 0	No		X		
117	0902_SW022_230509		09/05/2023 01:28 PM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

(ALS) COC#: 51920 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Jack 16/05/23 1450	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
118	0902_SW023_230510		10/05/2023 08:51 AM	WATER	ALS: 4 Non ALS: 0	No		X		
119	0902_SW024_230509		09/05/2023 03:08 PM	WATER	ALS: 4 Non ALS: 0	No		X		
120	0902_SW030_230510		10/05/2023 07:52 AM	WATER	ALS: 4 Non ALS: 0	No		X		
121	0902_SW035_230509		09/05/2023 02:36 PM	WATER	ALS: 4 Non ALS: 0	No		X		
122	0902_SW037_230508		08/05/2023 10:59 AM	WATER	ALS: 4 Non ALS: 0	No		X		
123	0902_QC100_230508		08/05/2023 12:31 PM	WATER	ALS: 4 Non ALS: 0	No		X		
124	0902_QC101_230508		08/05/2023 03:11 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
125	0902_QC102_230508		08/05/2023 03:10 PM	WATER	ALS: 4 Non ALS: 0	No		X		
126	0902_QC103_230509		09/05/2023 08:15 AM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 51920 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Jack 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
127	0902_QC104_230509		09/05/2023 09:44 AM	WATER	ALS: 4 Non ALS: 0	No		X		
128	0902_QC105_230509		09/05/2023 01:30 PM	WATER	ALS: 4 Non ALS: 0	No		X		
129	0902_QC106_230509		09/05/2023 02:42 PM	SOIL	ALS: 1 Non ALS: 0	No	X			
130	0902_QC107_230509		09/05/2023 03:11 PM	WATER	ALS: 4 Non ALS: 0	No		X		
131	0902_QC108_230510		10/05/2023 07:51 AM	SOIL	ALS: 1 Non ALS: 0	No	X			
132	0902_QC109_230510		10/05/2023 08:31 AM	WATER	ALS: 4 Non ALS: 0	No		X		
133	0902_QC110_230510		10/05/2023 11:56 AM	WATER	ALS: 4 Non ALS: 0	No		X		
134	0902_QC111_230510		10/05/2023 01:54 PM	WATER	ALS: 4 Non ALS: 0	No		X		
135	0902_QC112_230510		10/05/2023 02:28 PM	WATER	ALS: 4 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 51920 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Zach DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

SAMPLE DETAILS							ANALYSIS REQUIRED			
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Soil - New Analysis SOIL	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
136	0902_QC113_230511		11/05/2023 06:55 AM	WATER	ALS: 4 Non ALS: 0	No		X		
137	0902_QC300_230508		08/05/2023 06:16 PM	WATER	ALS: 2 Non ALS: 0	No		X		
138	0902_QC301_230509		09/05/2023 05:24 PM	WATER	ALS: 2 Non ALS: 0	No		X		
139	0902_QC302_230510		10/05/2023 03:17 PM	WATER	ALS: 2 Non ALS: 0	No		X		
140	0902_QC303_230511		11/05/2023 03:34 PM	WATER	ALS: 2 Non ALS: 0	No		X		
141	0902_QC304_230512		12/05/2023 01:53 PM	WATER	ALS: 2 Non ALS: 0	No		X		
142	0902_QC305_230515		15/05/2023 01:55 PM	WATER	ALS: 2 Non ALS: 0	No		X		

CHAIN OF CUSTODY

ALS COC#: 51920 * ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW001_230511	HDPE (no PTFE)	20 mL	00350822017610	Grey	No	
001	0902_MW001_230511	HDPE (no PTFE)	20 mL	00350822017504	Grey	No	
001	0902_MW001_230511	HDPE (no PTFE)	20 mL	00350822059359	Grey	No	
001	0902_MW001_230511	HDPE (no PTFE)	20 mL	00350822017558	Grey	No	
002	0902_MW002_230511	HDPE (no PTFE)	20 mL	00350822017473	Grey	No	
002	0902_MW002_230511	HDPE (no PTFE)	20 mL	00350822059266	Grey	No	
002	0902_MW002_230511	HDPE (no PTFE)	20 mL	00350822059251	Grey	No	
002	0902_MW002_230511	HDPE (no PTFE)	20 mL	00350822059339	Grey	No	
003	0902_MW004_230511	HDPE (no PTFE)	20 mL	00350822059265	Grey	No	
003	0902_MW004_230511	HDPE (no PTFE)	20 mL	00350822017491	Grey	No	
003	0902_MW004_230511	HDPE (no PTFE)	20 mL	00350822017537	Grey	No	
003	0902_MW004_230511	HDPE (no PTFE)	20 mL	00350822059288	Grey	No	
004	0902_MW005_230511	HDPE (no PTFE)	20 mL	00350822017592	Grey	No	
004	0902_MW005_230511	HDPE (no PTFE)	20 mL	00350822017531	Grey	No	
004	0902_MW005_230511	HDPE (no PTFE)	20 mL	00350822059227	Grey	No	
004	0902_MW005_230511	HDPE (no PTFE)	20 mL	00350822059376	Grey	No	
005	0902_MW007_230515	HDPE (no PTFE)	20 mL	00350822063908	Grey	No	
005	0902_MW007_230515	HDPE (no PTFE)	20 mL	00350822063828	Grey	No	
005	0902_MW007_230515	HDPE (no PTFE)	20 mL	00350822063678	Grey	No	
005	0902_MW007_230515	HDPE (no PTFE)	20 mL	00350822063635	Grey	No	
006	0902_MW008_230511	HDPE (no PTFE)	20 mL	00350822063741	Grey	No	
006	0902_MW008_230511	HDPE (no PTFE)	20 mL	00350822063645	Grey	No	
006	0902_MW008_230511	HDPE (no PTFE)	20 mL	00350822063820	Grey	No	
006	0902_MW008_230511	HDPE (no PTFE)	20 mL	00350822063753	Grey	No	
007	0902_MW009_230511	HDPE (no PTFE)	20 mL	00350822063686	Grey	No	
007	0902_MW009_230511	HDPE (no PTFE)	20 mL	00350822063780	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 51920 ALS Laboratory: ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

007	0902_MW009_230511	HDPE (no PTFE)	20 mL	00350822063577	Grey	No	
007	0902_MW009_230511	HDPE (no PTFE)	20 mL	00350822063712	Grey	No	
008	0902_MW010_230511	HDPE (no PTFE)	20 mL	00350822063682	Grey	No	
008	0902_MW010_230511	HDPE (no PTFE)	20 mL	00350822063833	Grey	No	
008	0902_MW010_230511	HDPE (no PTFE)	20 mL	00350822063840	Grey	No	
008	0902_MW010_230511	HDPE (no PTFE)	20 mL	00350822063858	Grey	No	
009	0902_MW012_230511	HDPE (no PTFE)	20 mL	00350822059344	Grey	No	
009	0902_MW012_230511	HDPE (no PTFE)	20 mL	00350822017548	Grey	No	
009	0902_MW012_230511	HDPE (no PTFE)	20 mL	00350822059234	Grey	No	
009	0902_MW012_230511	HDPE (no PTFE)	20 mL	00350822017526	Grey	No	
010	0902_MW013_230511	HDPE (no PTFE)	20 mL	00350822059304	Grey	No	
010	0902_MW013_230511	HDPE (no PTFE)	20 mL	00350822017594	Grey	No	
010	0902_MW013_230511	HDPE (no PTFE)	20 mL	00350822017480	Grey	No	
010	0902_MW013_230511	HDPE (no PTFE)	20 mL	00350822017507	Grey	No	
011	0902_MW014_230511	HDPE (no PTFE)	20 mL	00350822059343	Grey	No	
011	0902_MW014_230511	HDPE (no PTFE)	20 mL	00350822059249	Grey	No	
011	0902_MW014_230511	HDPE (no PTFE)	20 mL	00350822017487	Grey	No	
011	0902_MW014_230511	HDPE (no PTFE)	20 mL	00350822059325	Grey	No	
012	0902_MW015_23011	HDPE (no PTFE)	20 mL	00350822059363	Grey	No	
012	0902_MW015_23011	HDPE (no PTFE)	20 mL	00350822059308	Grey	No	
012	0902_MW015_23011	HDPE (no PTFE)	20 mL	00350822059349	Grey	No	
012	0902_MW015_23011	HDPE (no PTFE)	20 mL	00350822059326	Grey	No	
013	0902_MW016_230511	HDPE (no PTFE)	20 mL	00350822017512	Grey	No	
013	0902_MW016_230511	HDPE (no PTFE)	20 mL	00350822059257	Grey	No	
013	0902_MW016_230511	HDPE (no PTFE)	20 mL	00350822017607	Grey	No	
013	0902_MW016_230511	HDPE (no PTFE)	20 mL	00350822059311	Grey	No	
014	0902_MW017_230511	HDPE (no PTFE)	20 mL	00350822059305	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 51920 ALS Laboratory: ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

014	0902_MW017_230511	HDPE (no PTFE)	20 mL	00350822017625	Grey	No	
014	0902_MW017_230511	HDPE (no PTFE)	20 mL	00350822017488	Grey	No	
014	0902_MW017_230511	HDPE (no PTFE)	20 mL	00350822059299	Grey	No	
015	0902_MW020_230508	HDPE (no PTFE)	20 mL	00350822059230	Grey	No	
015	0902_MW020_230508	HDPE (no PTFE)	20 mL	00350822059242	Grey	No	
015	0902_MW020_230508	HDPE (no PTFE)	20 mL	00350822059229	Grey	No	
016	0902_MW021_230508	HDPE (no PTFE)	20 mL	00350822059346	Grey	No	
016	0902_MW021_230508	HDPE (no PTFE)	20 mL	00350822017511	Grey	No	
016	0902_MW021_230508	HDPE (no PTFE)	20 mL	00350822059259	Grey	No	
016	0902_MW021_230508	HDPE (no PTFE)	20 mL	00350822059272	Grey	No	
017	0902_MW022_230508	HDPE (no PTFE)	20 mL	00350822017543	Grey	No	
017	0902_MW022_230508	HDPE (no PTFE)	20 mL	00350822059319	Grey	No	
017	0902_MW022_230508	HDPE (no PTFE)	20 mL	00350822017516	Grey	No	
017	0902_MW022_230508	HDPE (no PTFE)	20 mL	00350822059351	Grey	No	
018	0902_MW023_230508	HDPE (no PTFE)	20 mL	00350822059355	Grey	No	
018	0902_MW023_230508	HDPE (no PTFE)	20 mL	00350822017597	Grey	No	
018	0902_MW023_230508	HDPE (no PTFE)	20 mL	00350822017549	Grey	No	
018	0902_MW023_230508	HDPE (no PTFE)	20 mL	00350822017605	Grey	No	
019	0902_MW024_230512	HDPE (no PTFE)	20 mL	00350822063720	Grey	No	
019	0902_MW024_230512	HDPE (no PTFE)	20 mL	00350822063672	Grey	No	
019	0902_MW024_230512	HDPE (no PTFE)	20 mL	00350822063797	Grey	No	
019	0902_MW024_230512	HDPE (no PTFE)	20 mL	00350822063863	Grey	No	
020	0902_MW025_230509	HDPE (no PTFE)	20 mL	00350821010796	Grey	No	
020	0902_MW025_230509	HDPE (no PTFE)	20 mL	00350522084615	Grey	No	
020	0902_MW025_230509	HDPE (no PTFE)	20 mL	00350821010851	Grey	No	
020	0902_MW025_230509	HDPE (no PTFE)	20 mL	00350522084412	Grey	No	
021	0902_MW026_230512	HDPE (no PTFE)	20 mL	00350822063943	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 51920 ALS Laboratory: ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

021	0902_MW026_230512	HDPE (no PTFE)	20 mL	00350822063969	Grey	No	
021	0902_MW026_230512	HDPE (no PTFE)	20 mL	00350822063648	Grey	No	
021	0902_MW026_230512	HDPE (no PTFE)	20 mL	00350822063655	Grey	No	
022	0902_MW028_230512	HDPE (no PTFE)	20 mL	00350822063722	Grey	No	
022	0902_MW028_230512	HDPE (no PTFE)	20 mL	00350822063625	Grey	No	
022	0902_MW028_230512	HDPE (no PTFE)	20 mL	00350822063732	Grey	No	
022	0902_MW028_230512	HDPE (no PTFE)	20 mL	00350822063745	Grey	No	
023	0902_MW030_230508	HDPE (no PTFE)	20 mL	00350822017581	Grey	No	
023	0902_MW030_230508	HDPE (no PTFE)	20 mL	00350822017608	Grey	No	
023	0902_MW030_230508	HDPE (no PTFE)	20 mL	00350822017585	Grey	No	
023	0902_MW030_230508	HDPE (no PTFE)	20 mL	00350822017590	Grey	No	
024	0902_MW032_230515	HDPE (no PTFE)	20 mL	00350822063838	Grey	No	
024	0902_MW032_230515	HDPE (no PTFE)	20 mL	00350822063687	Grey	No	
024	0902_MW032_230515	HDPE (no PTFE)	20 mL	00350822063661	Grey	No	
024	0902_MW032_230515	HDPE (no PTFE)	20 mL	00350822063606	Grey	No	
025	0902_MW033_230515	HDPE (no PTFE)	20 mL	00350822063613	Grey	No	
025	0902_MW033_230515	HDPE (no PTFE)	20 mL	00350822063641	Grey	No	
025	0902_MW033_230515	HDPE (no PTFE)	20 mL	00350822063768	Grey	No	
025	0902_MW033_230515	HDPE (no PTFE)	20 mL	00350822063688	Grey	No	
026	0902_MW034_230515	HDPE (no PTFE)	20 mL	00350822063719	Grey	No	
026	0902_MW034_230515	HDPE (no PTFE)	20 mL	00350822063942	Grey	No	
026	0902_MW034_230515	HDPE (no PTFE)	20 mL	00350822063760	Grey	No	
026	0902_MW034_230515	HDPE (no PTFE)	20 mL	00350822063637	Grey	No	
027	0902_MW036_230508	HDPE (no PTFE)	20 mL	00350822017604	Grey	No	
027	0902_MW036_230508	HDPE (no PTFE)	20 mL	00350822059221	Grey	No	
027	0902_MW036_230508	HDPE (no PTFE)	20 mL	00350822017542	Grey	No	
027	0902_MW036_230508	HDPE (no PTFE)	20 mL	00350822017502	Grey	No	

CHAIN OF CUSTODY

(ALS) COC#: 51920 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

028	0902_MW040_230511	HDPE (no PTFE)	20 mL	00350822063765	Grey	No	
028	0902_MW040_230511	HDPE (no PTFE)	20 mL	00350822063664	Grey	No	
028	0902_MW040_230511	HDPE (no PTFE)	20 mL	00350822063824	Grey	No	
028	0902_MW040_230511	HDPE (no PTFE)	20 mL	00350822063779	Grey	No	
029	0902_MW041_230515	HDPE (no PTFE)	20 mL	00350822063681	Grey	No	
029	0902_MW041_230515	HDPE (no PTFE)	20 mL	00350822063755	Grey	No	
029	0902_MW041_230515	HDPE (no PTFE)	20 mL	00350822063643	Grey	No	
029	0902_MW041_230515	HDPE (no PTFE)	20 mL	00350822063968	Grey	No	
030	0902_MW042_230511	HDPE (no PTFE)	20 mL	00350822063971	Grey	No	
030	0902_MW042_230511	HDPE (no PTFE)	20 mL	00350822063701	Grey	No	
030	0902_MW042_230511	HDPE (no PTFE)	20 mL	00350822063590	Grey	No	
030	0902_MW042_230511	HDPE (no PTFE)	20 mL	00350822063980	Grey	No	
031	0902_MW043_230515	HDPE (no PTFE)	20 mL	00350822064010	Grey	No	
031	0902_MW043_230515	HDPE (no PTFE)	20 mL	00350822063829	Grey	No	
031	0902_MW043_230515	HDPE (no PTFE)	20 mL	00350822063832	Grey	No	
031	0902_MW043_230515	HDPE (no PTFE)	20 mL	00350822063694	Grey	No	
032	0902_MW045_230509	HDPE (no PTFE)	20 mL	00350522084823	Grey	No	
032	0902_MW045_230509	HDPE (no PTFE)	20 mL	00350821015077	Grey	No	
032	0902_MW045_230509	HDPE (no PTFE)	20 mL	00350522084861	Grey	No	
032	0902_MW045_230509	HDPE (no PTFE)	20 mL	00350821015080	Grey	No	
033	0902_MW046_230509	HDPE (no PTFE)	20 mL	00350522084529	Grey	No	
033	0902_MW046_230509	HDPE (no PTFE)	20 mL	00350522084850	Grey	No	
033	0902_MW046_230509	HDPE (no PTFE)	20 mL	00350522084531	Grey	No	
033	0902_MW046_230509	HDPE (no PTFE)	20 mL	00350522084866	Grey	No	
034	0902_MW047_230515	HDPE (no PTFE)	20 mL	00350822063667	Grey	No	
034	0902_MW047_230515	HDPE (no PTFE)	20 mL	00350822063979	Grey	No	
034	0902_MW047_230515	HDPE (no PTFE)	20 mL	00350822063847	Grey	No	

CHAIN OF CUSTODY

COC#: **51920** ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

034	0902_MW047_230515	HDPE (no PTFE)	20 mL	00350822063936	Grey	No	
035	0902_MW048_230511	HDPE (no PTFE)	20 mL	00350822063692	Grey	No	
035	0902_MW048_230511	HDPE (no PTFE)	20 mL	00350822063642	Grey	No	
035	0902_MW048_230511	HDPE (no PTFE)	20 mL	00350822063884	Grey	No	
035	0902_MW048_230511	HDPE (no PTFE)	20 mL	00350822063634	Grey	No	
036	0902_MW050_230515	HDPE (no PTFE)	20 mL	00350822063747	Grey	No	
036	0902_MW050_230515	HDPE (no PTFE)	20 mL	00350822063710	Grey	No	
036	0902_MW050_230515	HDPE (no PTFE)	20 mL	00350822063653	Grey	No	
036	0902_MW050_230515	HDPE (no PTFE)	20 mL	00350822063919	Grey	No	
037	0902_MW051_230515	HDPE (no PTFE)	20 mL	00350822063817	Grey	No	
037	0902_MW051_230515	HDPE (no PTFE)	20 mL	00350822063834	Grey	No	
037	0902_MW051_230515	HDPE (no PTFE)	20 mL	00350822063731	Grey	No	
037	0902_MW051_230515	HDPE (no PTFE)	20 mL	00350822063751	Grey	No	
038	0902_MW052_230515	HDPE (no PTFE)	20 mL	00350822063728	Grey	No	
038	0902_MW052_230515	HDPE (no PTFE)	20 mL	00350822063685	Grey	No	
038	0902_MW052_230515	HDPE (no PTFE)	20 mL	00350822063650	Grey	No	
038	0902_MW052_230515	HDPE (no PTFE)	20 mL	00350822063978	Grey	No	
039	0902_MW053_230509	HDPE (no PTFE)	20 mL	00350522084558	Grey	No	
039	0902_MW053_230509	HDPE (no PTFE)	20 mL	00350822059287	Grey	No	
039	0902_MW053_230509	HDPE (no PTFE)	20 mL	00350822059224	Grey	No	
039	0902_MW053_230509	HDPE (no PTFE)	20 mL	00350522084590	Grey	No	
040	0902_MW054_230509	HDPE (no PTFE)	20 mL	00350822059316	Grey	No	
040	0902_MW054_230509	HDPE (no PTFE)	20 mL	00350822059307	Grey	No	
040	0902_MW054_230509	HDPE (no PTFE)	20 mL	00350822017493	Grey	No	
040	0902_MW054_230509	HDPE (no PTFE)	20 mL	00350822059333	Grey	No	
041	0902_MW056_230509	HDPE (no PTFE)	20 mL	00350822059285	Grey	No	
041	0902_MW056_230509	HDPE (no PTFE)	20 mL	00350522084899	Grey	No	

CHAIN OF CUSTODY

COC#: 51920 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

041	0902_MW056_230509	HDPE (no PTFE)	20 mL	00350822017489	Grey	No	
041	0902_MW056_230509	HDPE (no PTFE)	20 mL	00350522084726	Grey	No	
042	0902_MW057_230509	HDPE (no PTFE)	20 mL	00350822059241	Grey	No	
042	0902_MW057_230509	HDPE (no PTFE)	20 mL	00350822017623	Grey	No	
042	0902_MW057_230509	HDPE (no PTFE)	20 mL	00350822017621	Grey	No	
042	0902_MW057_230509	HDPE (no PTFE)	20 mL	00350822017599	Grey	No	
043	0902_MW058_230509	HDPE (no PTFE)	20 mL	00350821010743	Grey	No	
043	0902_MW058_230509	HDPE (no PTFE)	20 mL	00350821010787	Grey	No	
043	0902_MW058_230509	HDPE (no PTFE)	20 mL	00350522084387	Grey	No	
043	0902_MW058_230509	HDPE (no PTFE)	20 mL	00350522084925	Grey	No	
044	0902_MW059_230509	HDPE (no PTFE)	20 mL	00350522084625	Grey	No	
044	0902_MW059_230509	HDPE (no PTFE)	20 mL	00350822017564	Grey	No	
044	0902_MW059_230509	HDPE (no PTFE)	20 mL	00350522084834	Grey	No	
044	0902_MW059_230509	HDPE (no PTFE)	20 mL	00350822059264	Grey	No	
045	0902_MW060_230509	HDPE (no PTFE)	20 mL	00350522084564	Grey	No	
045	0902_MW060_230509	HDPE (no PTFE)	20 mL	00350522084856	Grey	No	
045	0902_MW060_230509	HDPE (no PTFE)	20 mL	00350522084556	Grey	No	
045	0902_MW060_230509	HDPE (no PTFE)	20 mL	00350522084887	Grey	No	
046	0902_MW061_230509	HDPE (no PTFE)	20 mL	00350821010718	Grey	No	
046	0902_MW061_230509	HDPE (no PTFE)	20 mL	00350821010837	Grey	No	
046	0902_MW061_230509	HDPE (no PTFE)	20 mL	00350821010870	Grey	No	
047	0902_MW062_230509	HDPE (no PTFE)	20 mL	00350821015171	Grey	No	
047	0902_MW062_230509	HDPE (no PTFE)	20 mL	00350821015103	Grey	No	
047	0902_MW062_230509	HDPE (no PTFE)	20 mL	00350821010984	Grey	No	
047	0902_MW062_230509	HDPE (no PTFE)	20 mL	00350821010916	Grey	No	
048	0902_MW063_230509	HDPE (no PTFE)	20 mL	00350821015118	Grey	No	
048	0902_MW063_230509	HDPE (no PTFE)	20 mL	00350522084730	Grey	No	

CHAIN OF CUSTODY

COC#: 51920 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

048	0902_MW063_230509	HDPE (no PTFE)	20 mL	00350522084929	Grey	No	
048	0902_MW063_230509	HDPE (no PTFE)	20 mL	00350821015126	Grey	No	
049	0902_MW064_230509	HDPE (no PTFE)	20 mL	00350522084426	Grey	No	
049	0902_MW064_230509	HDPE (no PTFE)	20 mL	00350522084622	Grey	No	
049	0902_MW064_230509	HDPE (no PTFE)	20 mL	00350522084933	Grey	No	
049	0902_MW064_230509	HDPE (no PTFE)	20 mL	00350522084471	Grey	No	
050	0902_MW065_230509	HDPE (no PTFE)	20 mL	00350522084859	Grey	No	
050	0902_MW065_230509	HDPE (no PTFE)	20 mL	00350522084611	Grey	No	
050	0902_MW065_230509	HDPE (no PTFE)	20 mL	00350522084544	Grey	No	
050	0902_MW065_230509	HDPE (no PTFE)	20 mL	00350522084829	Grey	No	
051	0902_MW066_230509	HDPE (no PTFE)	20 mL	00350522084569	Grey	No	
051	0902_MW066_230509	HDPE (no PTFE)	20 mL	00350821015089	Grey	No	
051	0902_MW066_230509	HDPE (no PTFE)	20 mL	00350522084400	Grey	No	
051	0902_MW066_230509	HDPE (no PTFE)	20 mL	00350821014989	Grey	No	
052	0902_MW067_230509	HDPE (no PTFE)	20 mL	00350822039340	Grey	No	
052	0902_MW067_230509	HDPE (no PTFE)	20 mL	00350822039122	Grey	No	
052	0902_MW067_230509	HDPE (no PTFE)	20 mL	00350522084843	Grey	No	
052	0902_MW067_230509	HDPE (no PTFE)	20 mL	00350522084630	Grey	No	
053	0902_MW068_230509	HDPE (no PTFE)	20 mL	00350822039306	Grey	No	
053	0902_MW068_230509	HDPE (no PTFE)	20 mL	00350821010793	Grey	No	
053	0902_MW068_230509	HDPE (no PTFE)	20 mL	00350821010924	Grey	No	
053	0902_MW068_230509	HDPE (no PTFE)	20 mL	00350822039438	Grey	No	
054	0902_MW069_230511	HDPE (no PTFE)	20 mL	00350822017528	Grey	No	
054	0902_MW069_230511	HDPE (no PTFE)	20 mL	00350822059356	Grey	No	
054	0902_MW069_230511	HDPE (no PTFE)	20 mL	00350822059226	Grey	No	
054	0902_MW069_230511	HDPE (no PTFE)	20 mL	00350822059335	Grey	No	
055	0902_MW070_230509	HDPE (no PTFE)	20 mL	00350821015042	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 51920 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

055	0902_MW070_230509	HDPE (no PTFE)	20 mL	00350522084513	Grey	No	
055	0902_MW070_230509	HDPE (no PTFE)	20 mL	00350522084937	Grey	No	
055	0902_MW070_230509	HDPE (no PTFE)	20 mL	00350821015169	Grey	No	
056	0902_MW071_230509	HDPE (no PTFE)	20 mL	00350522084629	Grey	No	
056	0902_MW071_230509	HDPE (no PTFE)	20 mL	00350821010971	Grey	No	
056	0902_MW071_230509	HDPE (no PTFE)	20 mL	00350522084907	Grey	No	
056	0902_MW071_230509	HDPE (no PTFE)	20 mL	00350821010963	Grey	No	
057	0902_MW072_230515	HDPE (no PTFE)	20 mL	00350822063793	Grey	No	
057	0902_MW072_230515	HDPE (no PTFE)	20 mL	00350822063951	Grey	No	
057	0902_MW072_230515	HDPE (no PTFE)	20 mL	00350822063948	Grey	No	
057	0902_MW072_230515	HDPE (no PTFE)	20 mL	00350822063917	Grey	No	
058	0902_MW073_230515	HDPE (no PTFE)	20 mL	00350822063656	Grey	No	
058	0902_MW073_230515	HDPE (no PTFE)	20 mL	00350822063605	Grey	No	
058	0902_MW073_230515	HDPE (no PTFE)	20 mL	00350822063970	Grey	No	
058	0902_MW073_230515	HDPE (no PTFE)	20 mL	00350822063925	Grey	No	
059	0902_MW074_230515	HDPE (no PTFE)	20 mL	00350822063652	Grey	No	
059	0902_MW074_230515	HDPE (no PTFE)	20 mL	00350822063739	Grey	No	
059	0902_MW074_230515	HDPE (no PTFE)	20 mL	00350822063612	Grey	No	
059	0902_MW074_230515	HDPE (no PTFE)	20 mL	00350822063993	Grey	No	
060	0902_MW075_230508	HDPE (no PTFE)	20 mL	00350822017554	Grey	No	
060	0902_MW075_230508	HDPE (no PTFE)	20 mL	00350822017577	Grey	No	
060	0902_MW075_230508	HDPE (no PTFE)	20 mL	00350822059222	Grey	No	
060	0902_MW075_230508	HDPE (no PTFE)	20 mL	00350822017462	Grey	No	
061	0902_MW076_230510	HDPE (no PTFE)	20 mL	00350822017622	Grey	No	
061	0902_MW076_230510	HDPE (no PTFE)	20 mL	00350822059296	Grey	No	
061	0902_MW076_230510	HDPE (no PTFE)	20 mL	00350822059255	Grey	No	
061	0902_MW076_230510	HDPE (no PTFE)	20 mL	00350822017510	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 51920 • ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A

Random Sample Temperature on Receipt: °C

Other comments:

062	0902_MW077_230510	HDPE (no PTFE)	20 mL	00350822059315	Grey	No	
062	0902_MW077_230510	HDPE (no PTFE)	20 mL	00350822017626	Grey	No	
062	0902_MW077_230510	HDPE (no PTFE)	20 mL	00350822017603	Grey	No	
062	0902_MW077_230510	HDPE (no PTFE)	20 mL	00350822017485	Grey	No	
063	0902_MW078_230511	HDPE (no PTFE)	20 mL	00350822059269	Grey	No	
063	0902_MW078_230511	HDPE (no PTFE)	20 mL	00350822059278	Grey	No	
063	0902_MW078_230511	HDPE (no PTFE)	20 mL	00350822059364	Grey	No	
063	0902_MW078_230511	HDPE (no PTFE)	20 mL	00350822017614	Grey	No	
064	0902_MW079_230510	HDPE (no PTFE)	20 mL	00350822059260	Grey	No	
064	0902_MW079_230510	HDPE (no PTFE)	20 mL	00350822059317	Grey	No	
064	0902_MW079_230510	HDPE (no PTFE)	20 mL	00350822059258	Grey	No	
064	0902_MW079_230510	HDPE (no PTFE)	20 mL	00350822017534	Grey	No	
065	0902_MW080_230508	HDPE (no PTFE)	20 mL	00350822059334	Grey	No	
065	0902_MW080_230508	HDPE (no PTFE)	20 mL	00350822059280	Grey	No	
065	0902_MW080_230508	HDPE (no PTFE)	20 mL	00350822017521	Grey	No	
065	0902_MW080_230508	HDPE (no PTFE)	20 mL	00350822017588	Grey	No	
066	0902_MW081_230509	HDPE (no PTFE)	20 mL	00350822084574	Grey	No	
066	0902_MW081_230509	HDPE (no PTFE)	20 mL	00350822084267	Grey	No	
066	0902_MW081_230509	HDPE (no PTFE)	20 mL	00350522084676	Grey	No	
066	0902_MW081_230509	HDPE (no PTFE)	20 mL	00350522084562	Grey	No	
067	0902_MW082_230509	HDPE (no PTFE)	20 mL	00350822059231	Grey	No	
067	0902_MW082_230509	HDPE (no PTFE)	20 mL	00350822017602	Grey	No	
067	0902_MW082_230509	HDPE (no PTFE)	20 mL	00350822017533	Grey	No	
067	0902_MW082_230509	HDPE (no PTFE)	20 mL	00350822017578	Grey	No	
068	0902_MW091_230510	HDPE (no PTFE)	20 mL	00350822017595	Grey	No	
068	0902_MW091_230510	HDPE (no PTFE)	20 mL	00350822059309	Grey	No	
068	0902_MW091_230510	HDPE (no PTFE)	20 mL	00350822059336	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 51920 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

068	0902_MW091_230510	HDPE (no PTFE)	20 mL	00350822017616	Grey	No	
069	0902_MW092_230510	HDPE (no PTFE)	20 mL	00350822059261	Grey	No	
069	0902_MW092_230510	HDPE (no PTFE)	20 mL	00350822059330	Grey	No	
069	0902_MW092_230510	HDPE (no PTFE)	20 mL	00350822017561	Grey	No	
069	0902_MW092_230510	HDPE (no PTFE)	20 mL	00350822059340	Grey	No	
070	0902_MW106_230508	HDPE (no PTFE)	20 mL	00350822017591	Grey	No	
070	0902_MW106_230508	HDPE (no PTFE)	20 mL	00350822059267	Grey	No	
070	0902_MW106_230508	HDPE (no PTFE)	20 mL	00350822017475	Grey	No	
070	0902_MW106_230508	HDPE (no PTFE)	20 mL	00350822017606	Grey	No	
071	0902_MW107D_230508	HDPE (no PTFE)	20 mL	00350822017530	Grey	No	
071	0902_MW107D_230508	HDPE (no PTFE)	20 mL	00350822059327	Grey	No	
071	0902_MW107D_230508	HDPE (no PTFE)	20 mL	00350822059329	Grey	No	
071	0902_MW107D_230508	HDPE (no PTFE)	20 mL	00350822017477	Grey	No	
072	0902_MW107I_230509	HDPE (no PTFE)	20 mL	00350822059256	Grey	No	
072	0902_MW107I_230509	HDPE (no PTFE)	20 mL	00350822017518	Grey	No	
072	0902_MW107I_230509	HDPE (no PTFE)	20 mL	00350822017556	Grey	No	
072	0902_MW107I_230509	HDPE (no PTFE)	20 mL	00350822017503	Grey	No	
073	0902_MW108_230508	HDPE (no PTFE)	20 mL	00350822059277	Grey	No	
073	0902_MW108_230508	HDPE (no PTFE)	20 mL	00350822017479	Grey	No	
073	0902_MW108_230508	HDPE (no PTFE)	20 mL	00350822017579	Grey	No	
073	0902_MW108_230508	HDPE (no PTFE)	20 mL	00350822017555	Grey	No	
074	0902_MW109_230508	HDPE (no PTFE)	20 mL	00350822059323	Grey	No	
074	0902_MW109_230508	HDPE (no PTFE)	20 mL	00350822017574	Grey	No	
074	0902_MW109_230508	HDPE (no PTFE)	20 mL	00350822017587	Grey	No	
074	0902_MW109_230508	HDPE (no PTFE)	20 mL	00350822059341	Grey	No	
075	0902_MW110_230508	HDPE (no PTFE)	20 mL	00350822059239	Grey	No	
075	0902_MW110_230508	HDPE (no PTFE)	20 mL	00350822017557	Grey	No	

CHAIN OF CUSTODY

ALS CoC#: 51920 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1050	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

075	0902_MW110_230508	HDPE (no PTFE)	20 mL	00350822017583	Grey	No	
075	0902_MW110_230508	HDPE (no PTFE)	20 mL	00350822017600	Grey	No	
076	0902_MW111_230511	HDPE (no PTFE)	20 mL	00350822017565	Grey	No	
076	0902_MW111_230511	HDPE (no PTFE)	20 mL	00350822059362	Grey	No	
076	0902_MW111_230511	HDPE (no PTFE)	20 mL	00350822059283	Grey	No	
076	0902_MW111_230511	HDPE (no PTFE)	20 mL	00350822017498	Grey	No	
077	0902_MW112_230511	HDPE (no PTFE)	20 mL	00350822017563	Grey	No	
077	0902_MW112_230511	HDPE (no PTFE)	20 mL	00350822017527	Grey	No	
077	0902_MW112_230511	HDPE (no PTFE)	20 mL	00350822017620	Grey	No	
077	0902_MW112_230511	HDPE (no PTFE)	20 mL	00350822059345	Grey	No	
078	0902_MW113_230511	HDPE (no PTFE)	20 mL	00350822017494	Grey	No	
078	0902_MW113_230511	HDPE (no PTFE)	20 mL	00350822017492	Grey	No	
078	0902_MW113_230511	HDPE (no PTFE)	20 mL	00350822017522	Grey	No	
079	0902_MW114_230511	HDPE (no PTFE)	20 mL	00350822017478	Grey	No	
079	0902_MW114_230511	HDPE (no PTFE)	20 mL	00350822017476	Grey	No	
079	0902_MW114_230511	HDPE (no PTFE)	20 mL	00350822017624	Grey	No	
079	0902_MW114_230511	HDPE (no PTFE)	20 mL	00350822017609	Grey	No	
080	0902_MW143_230510	HDPE (no PTFE)	20 mL	00350822017520	Grey	No	
080	0902_MW143_230510	HDPE (no PTFE)	20 mL	00350822059252	Grey	No	
080	0902_MW143_230510	HDPE (no PTFE)	20 mL	00350822017484	Grey	No	
080	0902_MW143_230510	HDPE (no PTFE)	20 mL	00350822017568	Grey	No	
081	0902_MW144_230510	HDPE (no PTFE)	20 mL	00350822017553	Grey	No	
081	0902_MW144_230510	HDPE (no PTFE)	20 mL	00350822059342	Grey	No	
081	0902_MW144_230510	HDPE (no PTFE)	20 mL	00350822017495	Grey	No	
081	0902_MW144_230510	HDPE (no PTFE)	20 mL	00350822017628	Grey	No	
082	0902_SD001_230508	HDPE Soil Jar	200 mL	00621122035665	Grey	No	
083	0902_SD002_230508	HDPE Soil Jar	200 mL	00621122035635	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 51920 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

084	0902_SD003_230508	HDPE Soil Jar	200 mL	00621122035600	Grey	No	
085	0902_SD005_230511	HDPE Soil Jar	200 mL	00621122035672	Grey	No	
086	0902_SD007_230511	HDPE Soil Jar	200 mL	00621122035601	Grey	No	
087	0902_SD008_230511	HDPE Soil Jar	200 mL	00621122035668	Grey	No	
088	0902_SD009_230511	HDPE Soil Jar	200 mL	00621122035618	Grey	No	
089	0902_SD011_230511	HDPE Soil Jar	200 mL	00621122035628	Grey	No	
090	0902_SD013_230511	HDPE Soil Jar	200 mL	00621122035574	Grey	No	
091	0902_SD014_230511	HDPE Soil Jar	200 mL	00621122035654	Grey	No	
092	0902_SD015_230510	HDPE Soil Jar	200 mL	00621122035664	Grey	No	
093	0902_SD016_230510	HDPE Soil Jar	200 mL	00621122035671	Grey	No	
094	0902_SD018_230510	HDPE Soil Jar	200 mL	00621122035637	Grey	No	
095	0902_SD019_230510	HDPE Soil Jar	200 mL	00621122035631	Grey	No	
096	0902_SD020_230510	HDPE Soil Jar	200 mL	00621122035670	Grey	No	
097	0902_SD022_230509	HDPE Soil Jar	200 mL	00621122035556	Grey	No	
098	0902_SD023_230510	HDPE Soil Jar	200 mL	00621122035652	Grey	No	
099	0902_SD024_230509	HDPE Soil Jar	200 mL	00621122035587	Grey	No	
100	0902_SD030_230510	HDPE Soil Jar	200 mL	00621122035658	Grey	No	
101	0902_SD035_230509	HDPE Soil Jar	200 mL	00621122035584	Grey	No	
102	0902_SW001_230508	HDPE (no PTFE)	20 mL	00350822059228	Grey	No	
102	0902_SW001_230508	HDPE (no PTFE)	20 mL	00350822017539	Grey	No	
102	0902_SW001_230508	HDPE (no PTFE)	20 mL	00350822059246	Grey	No	
102	0902_SW001_230508	HDPE (no PTFE)	20 mL	00350822017615	Grey	No	
103	0902_SW002_230508	HDPE (no PTFE)	20 mL	00350822059361	Grey	No	
103	0902_SW002_230508	HDPE (no PTFE)	20 mL	00350822059294	Grey	No	
103	0902_SW002_230508	HDPE (no PTFE)	20 mL	00350822059292	Grey	No	
103	0902_SW002_230508	HDPE (no PTFE)	20 mL	00350822017580	Grey	No	
104	0902_SW003_230508	HDPE (no PTFE)	20 mL	00350822017499	Grey	No	

CHAIN OF CUSTODY

CQC#: 51920 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

EMAIL REPORTS TO:

EMAIL INVOICES TO:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

104	0902_SW003_230508	HDPE (no PTFE)	20 mL	00350822017529	Grey	No	
104	0902_SW003_230508	HDPE (no PTFE)	20 mL	00350822017523	Grey	No	
104	0902_SW003_230508	HDPE (no PTFE)	20 mL	00350822017513	Grey	No	
105	0902_SW005_230511	HDPE (no PTFE)	20 mL	00350822059271	Grey	No	
105	0902_SW005_230511	HDPE (no PTFE)	20 mL	00350822059302	Grey	No	
105	0902_SW005_230511	HDPE (no PTFE)	20 mL	00350822017612	Grey	No	
105	0902_SW005_230511	HDPE (no PTFE)	20 mL	00350822017570	Grey	No	
106	0902_SW007_230511	HDPE (no PTFE)	20 mL	00350822059274	Grey	No	
106	0902_SW007_230511	HDPE (no PTFE)	20 mL	00350822017506	Grey	No	
106	0902_SW007_230511	HDPE (no PTFE)	20 mL	00350822017505	Grey	No	
106	0902_SW007_230511	HDPE (no PTFE)	20 mL	00350822059295	Grey	No	
107	0902_SW008_230511	HDPE (no PTFE)	20 mL	00350822059337	Grey	No	
107	0902_SW008_230511	HDPE (no PTFE)	20 mL	00350822017571	Grey	No	
107	0902_SW008_230511	HDPE (no PTFE)	20 mL	00350822059354	Grey	No	
107	0902_SW008_230511	HDPE (no PTFE)	20 mL	00350822059238	Grey	No	
108	0902_SW009_230511	HDPE (no PTFE)	20 mL	00350822059284	Grey	No	
108	0902_SW009_230511	HDPE (no PTFE)	20 mL	00350822059250	Grey	No	
108	0902_SW009_230511	HDPE (no PTFE)	20 mL	00350822059240	Grey	No	
108	0902_SW009_230511	HDPE (no PTFE)	20 mL	00350822017560	Grey	No	
109	0902_SW011_230511	HDPE (no PTFE)	20 mL	00350822059263	Grey	No	
109	0902_SW011_230511	HDPE (no PTFE)	20 mL	00350822059300	Grey	No	
109	0902_SW011_230511	HDPE (no PTFE)	20 mL	00350822059276	Grey	No	
109	0902_SW011_230511	HDPE (no PTFE)	20 mL	00350822059297	Grey	No	
110	0902_SW013_230511	HDPE (no PTFE)	20 mL	00350822059332	Grey	No	
110	0902_SW013_230511	HDPE (no PTFE)	20 mL	00350822059301	Grey	No	
110	0902_SW013_230511	HDPE (no PTFE)	20 mL	00350822017486	Grey	No	
110	0902_SW013_230511	HDPE (no PTFE)	20 mL	00350822017474	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 51920 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

111	0902_SW014_230511	HDPE (no PTFE)	20 mL	00350822017497	Grey	No	
111	0902_SW014_230511	HDPE (no PTFE)	20 mL	00350822059320	Grey	No	
111	0902_SW014_230511	HDPE (no PTFE)	20 mL	00350822059312	Grey	No	
111	0902_SW014_230511	HDPE (no PTFE)	20 mL	00350822017613	Grey	No	
112	0902_SW015_230510	HDPE (no PTFE)	20 mL	00350822059236	Grey	No	
112	0902_SW015_230510	HDPE (no PTFE)	20 mL	00350822017483	Grey	No	
112	0902_SW015_230510	HDPE (no PTFE)	20 mL	00350822059279	Grey	No	
112	0902_SW015_230510	HDPE (no PTFE)	20 mL	00350822017546	Grey	No	
113	0902_SW016_230510	HDPE (no PTFE)	20 mL	00350822017501	Grey	No	
113	0902_SW016_230510	HDPE (no PTFE)	20 mL	00350822059223	Grey	No	
113	0902_SW016_230510	HDPE (no PTFE)	20 mL	00350822017569	Grey	No	
113	0902_SW016_230510	HDPE (no PTFE)	20 mL	00350822059262	Grey	No	
114	0902_SW018_230510	HDPE (no PTFE)	20 mL	00350822017572	Grey	No	
114	0902_SW018_230510	HDPE (no PTFE)	20 mL	00350822017461	Grey	No	
114	0902_SW018_230510	HDPE (no PTFE)	20 mL	00350822017538	Grey	No	
114	0902_SW018_230510	HDPE (no PTFE)	20 mL	00350822017567	Grey	No	
115	0902_SW019_230510	HDPE (no PTFE)	20 mL	00350822059281	Grey	No	
115	0902_SW019_230510	HDPE (no PTFE)	20 mL	00350822017481	Grey	No	
115	0902_SW019_230510	HDPE (no PTFE)	20 mL	00350822017525	Grey	No	
115	0902_SW019_230510	HDPE (no PTFE)	20 mL	00350822017514	Grey	No	
116	0902_SW020_230510	HDPE (no PTFE)	20 mL	00350822017593	Grey	No	
116	0902_SW020_230510	HDPE (no PTFE)	20 mL	00350822059306	Grey	No	
116	0902_SW020_230510	HDPE (no PTFE)	20 mL	00350822017536	Grey	No	
116	0902_SW020_230510	HDPE (no PTFE)	20 mL	00350822017535	Grey	No	
117	0902_SW022_230509	HDPE (no PTFE)	20 mL	00350822039124	Grey	No	
117	0902_SW022_230509	HDPE (no PTFE)	20 mL	00350822039209	Grey	No	
117	0902_SW022_230509	HDPE (no PTFE)	20 mL	00350821010937	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 51920 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: Jack 16/05/23 1450	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

117	0902_SW022_230509	HDPE (no PTFE)	20 mL	00350821010841	Grey	No	
118	0902_SW023_230510	HDPE (no PTFE)	20 mL	00350822059298	Grey	No	
118	0902_SW023_230510	HDPE (no PTFE)	20 mL	00350822059375	Grey	No	
118	0902_SW023_230510	HDPE (no PTFE)	20 mL	00350822017509	Grey	No	
118	0902_SW023_230510	HDPE (no PTFE)	20 mL	00350822059360	Grey	No	
119	0902_SW024_230509	HDPE (no PTFE)	20 mL	00350822039333	Grey	No	
119	0902_SW024_230509	HDPE (no PTFE)	20 mL	00350522084655	Grey	No	
119	0902_SW024_230509	HDPE (no PTFE)	20 mL	00350822039074	Grey	No	
119	0902_SW024_230509	HDPE (no PTFE)	20 mL	00350522084618	Grey	No	
120	0902_SW030_230510	HDPE (no PTFE)	20 mL	00350822017575	Grey	No	
120	0902_SW030_230510	HDPE (no PTFE)	20 mL	00350822017544	Grey	No	
120	0902_SW030_230510	HDPE (no PTFE)	20 mL	00350822059303	Grey	No	
120	0902_SW030_230510	HDPE (no PTFE)	20 mL	00350822059290	Grey	No	
121	0902_SW035_230509	HDPE (no PTFE)	20 mL	00350822039062	Grey	No	
121	0902_SW035_230509	HDPE (no PTFE)	20 mL	00350822084571	Grey	No	
121	0902_SW035_230509	HDPE (no PTFE)	20 mL	00350822039279	Grey	No	
121	0902_SW035_230509	HDPE (no PTFE)	20 mL	00350822084399	Grey	No	
122	0902_SW037_230508	HDPE (no PTFE)	20 mL	00350822059321	Grey	No	
122	0902_SW037_230508	HDPE (no PTFE)	20 mL	00350822059324	Grey	No	
122	0902_SW037_230508	HDPE (no PTFE)	20 mL	00350822059248	Grey	No	
122	0902_SW037_230508	HDPE (no PTFE)	20 mL	00350822017573	Grey	No	
123	0902_QC100_230508	HDPE (no PTFE)	20 mL	00350822059328	Grey	No	
123	0902_QC100_230508	HDPE (no PTFE)	20 mL	00350822059310	Grey	No	
123	0902_QC100_230508	HDPE (no PTFE)	20 mL	00350822017463	Grey	No	
123	0902_QC100_230508	HDPE (no PTFE)	20 mL	00350822017601	Grey	No	
124	0902_QC101_230508	HDPE Soil Jar	200 mL	00621122035627	Grey	No	
125	0902_QC102_230508	HDPE (no PTFE)	20 mL	00350822017627	Grey	No	

CHAIN OF CUSTODY

COC#: 51920 * *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

125	0902_QC102_230508	HDPE (no PTFE)	20 mL	00350822059358	Grey	No	
125	0902_QC102_230508	HDPE (no PTFE)	20 mL	00350822059275	Grey	No	
125	0902_QC102_230508	HDPE (no PTFE)	20 mL	00350822017598	Grey	No	
126	0902_QC103_230509	HDPE (no PTFE)	20 mL	00350522084916	Grey	No	
126	0902_QC103_230509	HDPE (no PTFE)	20 mL	00350522084746	Grey	No	
126	0902_QC103_230509	HDPE (no PTFE)	20 mL	00350821010804	Grey	No	
126	0902_QC103_230509	HDPE (no PTFE)	20 mL	00350821010875	Grey	No	
127	0902_QC104_230509	HDPE (no PTFE)	20 mL	00350821015094	Grey	No	
127	0902_QC104_230509	HDPE (no PTFE)	20 mL	00350821015071	Grey	No	
127	0902_QC104_230509	HDPE (no PTFE)	20 mL	00350821015060	Grey	No	
127	0902_QC104_230509	HDPE (no PTFE)	20 mL	00350821015101	Grey	No	
128	0902_QC105_230509	HDPE (no PTFE)	20 mL	00350821010954	Grey	No	
128	0902_QC105_230509	HDPE (no PTFE)	20 mL	00350822084671	Grey	No	
128	0902_QC105_230509	HDPE (no PTFE)	20 mL	00350822084679	Grey	No	
128	0902_QC105_230509	HDPE (no PTFE)	20 mL	00350821010869	Grey	No	
129	0902_QC106_230509	HDPE Soil Jar	200 mL	00621122035616	Grey	No	
130	0902_QC107_230509	HDPE (no PTFE)	20 mL	00350821015164	Grey	No	
130	0902_QC107_230509	HDPE (no PTFE)	20 mL	00350821014942	Grey	No	
130	0902_QC107_230509	HDPE (no PTFE)	20 mL	00350522084736	Grey	No	
130	0902_QC107_230509	HDPE (no PTFE)	20 mL	00350522084500	Grey	No	
131	0902_QC108_230510	HDPE Soil Jar	200 mL	00621122035663	Grey	No	
132	0902_QC109_230510	HDPE (no PTFE)	20 mL	00350522084906	Grey	No	
132	0902_QC109_230510	HDPE (no PTFE)	20 mL	00350522084418	Grey	No	
132	0902_QC109_230510	HDPE (no PTFE)	20 mL	00350822059331	Grey	No	
132	0902_QC109_230510	HDPE (no PTFE)	20 mL	00350822017540	Grey	No	
133	0902_QC110_230510	HDPE (no PTFE)	20 mL	00350822017551	Grey	No	
133	0902_QC110_230510	HDPE (no PTFE)	20 mL	00350822017596	Grey	No	

CHAIN OF CUSTODY

ALS CQC#: 51920 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jack DATE TIME: 16/05/23 1450	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: 0902

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A

Random Sample Temperature on Receipt: °C

Other comments:

133	0902_QC110_230510	HDPE (no PTFE)	20 mL	00350822059347	Grey	No	
133	0902_QC110_230510	HDPE (no PTFE)	20 mL	00350822059235	Grey	No	
134	0902_QC111_230510	HDPE (no PTFE)	20 mL	00350822017559	Grey	No	
134	0902_QC111_230510	HDPE (no PTFE)	20 mL	00350822017508	Grey	No	
134	0902_QC111_230510	HDPE (no PTFE)	20 mL	00350822017550	Grey	No	
134	0902_QC111_230510	HDPE (no PTFE)	20 mL	00350822059314	Grey	No	
135	0902_QC112_230510	HDPE (no PTFE)	20 mL	00350822059322	Grey	No	
135	0902_QC112_230510	HDPE (no PTFE)	20 mL	00350822017532	Grey	No	
135	0902_QC112_230510	HDPE (no PTFE)	20 mL	00350822017500	Grey	No	
135	0902_QC112_230510	HDPE (no PTFE)	20 mL	00350822017524	Grey	No	
136	0902_QC113_230511	HDPE (no PTFE)	20 mL	00350822059282	Grey	No	
136	0902_QC113_230511	HDPE (no PTFE)	20 mL	00350822059254	Grey	No	
136	0902_QC113_230511	HDPE (no PTFE)	20 mL	00350822017582	Grey	No	
136	0902_QC113_230511	HDPE (no PTFE)	20 mL	00350822059237	Grey	No	
137	0902_QC300_230508	HDPE (no PTFE)	20 mL	00350822084803	Grey	No	
137	0902_QC300_230508	HDPE (no PTFE)	20 mL	00350822017584	Grey	No	
138	0902_QC301_230509	HDPE (no PTFE)	20 mL	00350822017566	Grey	No	
138	0902_QC301_230509	HDPE (no PTFE)	20 mL	00350822084594	Grey	No	
139	0902_QC302_230510	HDPE (no PTFE)	20 mL	00350822059225	Grey	No	
139	0902_QC302_230510	HDPE (no PTFE)	20 mL	00350822017611	Grey	No	
140	0902_QC303_230511	HDPE (no PTFE)	20 mL	00350822084342	Grey	No	
140	0902_QC303_230511	HDPE (no PTFE)	20 mL	00350822084831	Grey	No	
141	0902_QC304_230512	HDPE (no PTFE)	20 mL	00350822017552	Grey	No	
141	0902_QC304_230512	HDPE (no PTFE)	20 mL	00350822059350	Grey	No	
142	0902_QC305_230515	HDPE (no PTFE)	20 mL	00350822063592	Grey	No	
142	0902_QC305_230515	HDPE (no PTFE)	20 mL	00350822063996	Grey	No	

Total Bottle Count: ALS: 484, Non ALS: 0

ALSCompass
SAMPLING *Intelligence*

ALS Use Only

Custody Document for Submissions via ALS Compass App

Project: 60612562 PFAS OMP
Client: AECOM
Project Manager: GEOFF TREDINNICK
Phone: (0438 429 598)

ALS Compass COC Reference: 51920 ~~51923~~
Samples: 142
Sampler: NICOLA TOMLIN
Phone: (0478945466)

Turnaround Requirements: Standard ✓ Urgent

Special Instructions:	ALS Use Only			
	Custody seal intact?	YES	NO	N/A
	Free ice / frozen ice bricks upon receipt?	YES	NO	N/A
	Random sample temperature on receipt?		°C	

Custody:

Relinquished by:	Received by:	Relinquished by:	Received by:
NICOLA TOMLIN AECOM			[signature]
Date / Time: 15/5/23 1800	Date / Time:	Date / Time:	Date / Time: 16/5/23 1:15pm

CERTIFICATE OF ANALYSIS

Work Order	: **ES2319454**	Page	: 1 of 9
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP_23	Date Samples Received	: 09-Jun-2023 18:30
Order number	: 60612562_5.1	Date Analysis Commenced	: 13-Jun-2023
C-O-C number	: 53392	Issue Date	: 14-Jun-2023 17:32
Sampler	: NICOLA TOMLIN		
Site	: Resample		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 5		
No. of samples analysed	: 5		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW143_230609	0902_MW144_230609	----	----	----
				Sampling date / time	09-Jun-2023 14:39	09-Jun-2023 14:09	----	----	----
Compound	CAS Number	LOR	Unit		ES2319454-001	ES2319454-002	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.02**	**0.03**	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.13**	**0.07**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.70**	**0.02**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		**0.03**	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.01**	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)				Sample ID	0902_MW143_230609	0902_MW144_230609	----	----	----
				Sampling date / time	09-Jun-2023 14:39	09-Jun-2023 14:09	----	----	----
Compound	CAS Number	LOR	Unit		ES2319454-001	ES2319454-002	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.89**	**0.12**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.83**	**0.09**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.89**	**0.12**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**103**	**97.5**	----	----	----
13C8-PFOA	----	0.02	%		**96.8**	**98.0**	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC301_230609	----	----	----	----
				Sampling date / time	09-Jun-2023 15:41	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2319454-005	--------	--------	--------	--------
					Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)				Sample ID	0902_QC301_230609	----	----	----	----
				Sampling date / time	09-Jun-2023 15:41	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2319454-005	--------	--------	--------	--------
					Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	----	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**97.8**	----	----	----	----
13C8-PFOA	----	0.02	%		**99.0**	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW016_230609	0902_SW015_230609	----	----	----
				Sampling date / time	09-Jun-2023 14:54	09-Jun-2023 14:24	----	----	----
Compound	CAS Number	LOR	Unit		ES2319454-003	ES2319454-004	--------	--------	--------
					Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids									
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L		**0.04**	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L		**0.03**	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L		**0.19**	**0.09**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L		**0.23**	**0.14**	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L		<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids									
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L		<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L		**0.02**	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L		**0.02**	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L		<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L		<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides									
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L		<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L		<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)				Sample ID	0902_SW016_230609	0902_SW015_230609	----	----	----
				Sampling date / time	09-Jun-2023 14:54	09-Jun-2023 14:24	----	----	----
Compound	CAS Number	LOR	Unit		ES2319454-003	ES2319454-004	--------	--------	--------
					Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued									
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L		<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L		<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L		<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L		<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L		<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L		<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L		<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L		<0.05	<0.05	----	----	----
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L		**0.53**	**0.23**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		**0.42**	**0.23**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		**0.50**	**0.23**	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		**93.7**	**100**	----	----	----
13C8-PFOA	----	0.02	%		**95.9**	**95.5**	----	----	----

Surrogate Control Limits

Sub-Matrix: GROUNDWATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: RINSATE		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Sub-Matrix: SURFACE WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

QUALITY CONTROL REPORT

Work Order	: **ES2319454**	Page	: 1 of 7
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP_23	Date Samples Received	: 09-Jun-2023
Order number	: 60612562_5.1	Date Analysis Commenced	: 13-Jun-2023
C-O-C number	: 53392	Issue Date	: 14-Jun-2023
Sampler	: NICOLA TOMLIN		
Site	: Resample		
Quote number	: SY/139/19 v4 60612562_5.1		
No. of samples received	: 5		
No. of samples analysed	: 5		

Accreditation No. 825
Accredited for compliance with ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5106542)									
ES2319454-001	0902_MW143_230609	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.13	0.12	0.0	0% - 50%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.70	0.72	2.7	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2319454-005	0902_QC301_230609	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5106542)									
ES2319454-001	0902_MW143_230609	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5106542) - continued									
ES2319454-005	0902_QC301_230609	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5106542)									
ES2319454-001	0902_MW143_230609	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2319454-005	0902_QC301_230609	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5106542)									
ES2319454-001	0902_MW143_230609	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5106542) - continued									
ES2319454-001	0902_MW143_230609	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2319454-005	0902_QC301_230609	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5106542)									
ES2319454-001	0902_MW143_230609	EP231X: Sum of PFAS	----	0.01	µg/L	0.89	0.90	1.1	0% - 20%
ES2319454-005	0902_QC301_230609	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5106542)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	97.0	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	93.7	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	88.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	103	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	92.8	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	98.8	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5106542)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	93.4	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	125	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	108	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	103	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	110	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	106	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	111	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	122	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	92.1	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5106542)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	91.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	88.8	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	84.2	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	86.4	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	75.0	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	93.3	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	89.6	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5106542)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5106542) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	93.9	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	99.6	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	115	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	91.2	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5106542)							
ES2319454-002	0902_MW144_230609	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	87.8	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	92.5	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	85.8	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	105	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	86.3	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	97.9	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5106542)							
ES2319454-002	0902_MW144_230609	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	82.2	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	109	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	96.8	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	107	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	107	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	104	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	105	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	98.5	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	102	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	120	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	89.8	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5106542)							
ES2319454-002	0902_MW144_230609	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	91.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	77.3	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	75.9	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	85.4	66.0	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5106542) - continued							
ES2319454-002	0902_MW144_230609	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	95.6	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	99.2	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	88.2	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5106542)							
ES2319454-002	0902_MW144_230609	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	103	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	119	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	102	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	79.8	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2319454**	Page	: 1 of 4
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Telephone	: +61 2 8784 8555
Project	: NSW_0902_PFASOMP_23	Date Samples Received	: 09-Jun-2023
Site	: Resample	Issue Date	: 14-Jun-2023
Sampler	: NICOLA TOMLIN	No. of samples received	: 5
Order number	: 60612562_5.1	No. of samples analysed	: 5

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0902_MW143_230609, 0902_MW144_230609, 0902_SW016_230609, 0902_SW015_230609, 0902_QC301_230609	**09-Jun-2023**	**13-Jun-2023**	06-Dec-2023	✓	**14-Jun-2023**	06-Dec-2023	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) 0902_MW143_230609, 0902_MW144_230609, 0902_SW016_230609, 0902_SW015_230609, 0902_QC301_230609	**09-Jun-2023**	**13-Jun-2023**	06-Dec-2023	✓	**14-Jun-2023**	06-Dec-2023	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0902_MW143_230609, 0902_MW144_230609, 0902_SW016_230609, 0902_SW015_230609, 0902_QC301_230609	**09-Jun-2023**	**13-Jun-2023**	06-Dec-2023	✓	**14-Jun-2023**	06-Dec-2023	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X) 0902_MW143_230609, 0902_MW144_230609, 0902_SW016_230609, 0902_SW015_230609, 0902_QC301_230609	**09-Jun-2023**	**13-Jun-2023**	06-Dec-2023	✓	**14-Jun-2023**	06-Dec-2023	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X) 0902_MW143_230609, 0902_MW144_230609, 0902_SW016_230609, 0902_SW015_230609, 0902_QC301_230609	**09-Jun-2023**	**13-Jun-2023**	06-Dec-2023	✓	**14-Jun-2023**	06-Dec-2023	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	17	**11.76**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	17	**5.88**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2319454**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: JESSICA ROY	Contact	: Sepan Mahamad
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: jessica.roy@aecom.com	E-mail	: Sepan.Mahamad@ALSGlobal.com
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0902_PFASOMP_23	Page	: 1 of 2
Order number	: 60612562_5.1	Quote number	: ES2021AECOMAU0027 (SY/139/19 v4 60612562_5.1)
C-O-C number	: 53392	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: Resample		
Sampler	: NICOLA TOMLIN		

Dates

Date Samples Received	: 09-Jun-2023 18:30	Issue Date	: 13-Jun-2023
Client Requested Due Date	: 14-Jun-2023	Scheduled Reporting Date	: **14-Jun-2023**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 8.3'C - Ice Bricks present
Receipt Detail	:	No. of samples received / analysed	: 5 / 5

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process necessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP231X PFAS - Full Suite (28 analytes)
ES2319454-001	09-Jun-2023 14:39	0902_MW143_230609	✓
ES2319454-002	09-Jun-2023 14:09	0902_MW144_230609	✓
ES2319454-003	09-Jun-2023 14:54	0902_SW016_230609	✓
ES2319454-004	09-Jun-2023 14:24	0902_SW015_230609	✓
ES2319454-005	09-Jun-2023 15:41	0902_QC301_230609	✓

Proactive Holding Time Report

Sample(s) have been received within the recommended holding times for the requested analysis.

Requested Deliverables

ACCOUNTS PAYABLE		
- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com
DERP ESDAT REPORTS		
- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au
GEOFF TREDINNICK		
- *AU Certificate of Analysis - NATA (COA)	Email	Geoff.Tredinnick@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	Geoff.Tredinnick@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	Geoff.Tredinnick@aecom.com
- A4 - AU Tax Invoice (INV)	Email	Geoff.Tredinnick@aecom.com
- Chain of Custody (CoC) (COC)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	Geoff.Tredinnick@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	Geoff.Tredinnick@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	Geoff.Tredinnick@aecom.com
JESSICA ROY		
- *AU Certificate of Analysis - NATA (COA)	Email	jessica.roy@aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	jessica.roy@aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	jessica.roy@aecom.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	jessica.roy@aecom.com
- Chain of Custody (CoC) (COC)	Email	jessica.roy@aecom.com
- EDI Format - ENMRG (ENMRG)	Email	jessica.roy@aecom.com
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	jessica.roy@aecom.com
- EDI Format - ESDAT (ESDAT)	Email	jessica.roy@aecom.com
- EDI Format - XTab (XTAB)	Email	jessica.roy@aecom.com
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	jessica.roy@aecom.com

CHAIN OF CUSTODY

ALS COC#: 53392 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 9/6/23 6:39	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: Resample

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5,1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 1 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0902_MW143_230609		09/06/2023 02:39 PM	WATER	ALS: 4 Non ALS: 0	No	X		
002	0902_MW144_230609		09/06/2023 02:09 PM	WATER	ALS: 4 Non ALS: 0	No	X		
003	0902_SW016_230609		09/06/2023 02:54 PM	WATER	ALS: 4 Non ALS: 0	No	X		
004	0902_SW015_230609		09/06/2023 02:24 PM	WATER	ALS: 4 Non ALS: 0	No	X		
005	0902_QC301_230609		09/06/2023 03:41 PM	WATER	ALS: 4 Non ALS: 0	No	X		

TAT

Environmental Division Sydney
Work Order Reference
ES2319454

Telephone : +61-2-8784 8555

CHAIN OF CUSTODY

COC#: 53392 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0902_PFASOMP_23

SITE: Resample

ORDER NO:

PROJECT MANAGER: Jessica Roy

PRIMARY SAMPLER: Nicola Tomlin

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_5.1 / ES2021AECOMAU0027

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 9/6/23 6:30	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 1 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

Free ice / frozen ice bricks present upon receipt? Yes No N/A

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0902_MW143_230609	HDPE (no PTFE)	20 mL	00350822063816	Grey	No	
001	0902_MW143_230609	HDPE (no PTFE)	20 mL	00350822063977	Grey	No	
001	0902_MW143_230609	HDPE (no PTFE)	20 mL	00350822063972	Grey	No	
001	0902_MW143_230609	HDPE (no PTFE)	20 mL	00350822063952	Grey	No	
002	0902_MW144_230609	HDPE (no PTFE)	20 mL	00350822063759	Grey	No	
002	0902_MW144_230609	HDPE (no PTFE)	20 mL	00350822063618	Grey	No	
002	0902_MW144_230609	HDPE (no PTFE)	20 mL	00350822063837	Grey	No	
002	0902_MW144_230609	HDPE (no PTFE)	20 mL	00350822063746	Grey	No	
003	0902_SW016_230609	HDPE (no PTFE)	20 mL	00350822063955	Grey	No	
003	0902_SW016_230609	HDPE (no PTFE)	20 mL	00350822063914	Grey	No	
003	0902_SW016_230609	HDPE (no PTFE)	20 mL	00350822063748	Grey	No	
003	0902_SW016_230609	HDPE (no PTFE)	20 mL	00350822063854	Grey	No	
004	0902_SW015_230609	HDPE (no PTFE)	20 mL	00350822063711	Grey	No	
004	0902_SW015_230609	HDPE (no PTFE)	20 mL	00350822063651	Grey	No	
004	0902_SW015_230609	HDPE (no PTFE)	20 mL	00350822063795	Grey	No	
004	0902_SW015_230609	HDPE (no PTFE)	20 mL	00350822063627	Grey	No	
005	0902_QC301_230609	HDPE (no PTFE)	20 mL	00350822063938	Grey	No	
005	0902_QC301_230609	HDPE (no PTFE)	20 mL	00350822063636	Grey	No	
005	0902_QC301_230609	HDPE (no PTFE)	20 mL	00350822063619	Grey	No	
005	0902_QC301_230609	HDPE (no PTFE)	20 mL	00350822063697	Grey	No	

Total Bottle Count: ALS: 20, Non ALS: 0

ALSCompass SAMPLING *Intelligence*

ALS Use Only

Custody Document for Submissions via ALS Compass App

Project: PFAS OMP 606125562 **Client:** AECOM **Project Manager:** Geoff Tredinnick
Phone: (0438429598)

ALS Compass COC Reference: 53392 **# Samples:** 5 **Sampler:** Nicola Tomlin
Phone: (0478945466)

Turnaround Requirements: Standard ~~AAW~~ Urgent 24 hr

Special Instructions:	ALS Use Only			
	Custody seal intact?	YES	NO	N/A
	Free ice / frozen ice bricks upon receipt?	YES	NO	N/A
	Random sample temperature on receipt?		°C	

Custody:

Relinquished by: N. Tomlin	**Received by:**	**Relinquished by:**	**Received by:**
Date / Time: 9/6/23	**Date / Time:**	**Date / Time:**	**Date / Time:**

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 323268

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	Jessica Roy
Address	PO Box Q410, QVB Post Office, Sydney, NSW, 1230

Sample Details

Your Reference	**NSW_0902_PFASOMP_23**
Number of Samples	11 Water, 3 Soil
Date samples received	16/05/2023
Date completed instructions received	16/05/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	23/05/2023
Date of Issue	23/05/2023

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Phalak Inthakesone, Organics Development Manager, Sydney

Authorised By
Nancy Zhang, Laboratory Manager

PFAS in Waters Extended						
Our Reference		323268-1	323268-3	323268-4	323268-5	323268-6
Your Reference	UNITS	0902_QC200_230508	0902_QC202_230508	0902_QC203_230509	0902_QC204_230509	0902_QC205_230509
Date Sampled		08/05/2023	08/05/2023	09/05/2023	09/05/2023	09/05/2023
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	19/05/2023	19/05/2023	19/05/2023	19/05/2023	19/05/2023
Date analysed	-	19/05/2023	19/05/2023	19/05/2023	19/05/2023	19/05/2023
Perfluorobutanesulfonic acid	µg/L	<0.01	0.29	0.30	1.7	0.01
Perfluoropentanesulfonic acid	µg/L	<0.01	0.33	0.43	2.0	<0.01
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01	2.8	4.2	12	0.08
Perfluoroheptanesulfonic acid	µg/L	<0.01	0.12	0.15	0.37	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	<0.01	0.89	1.1	1.1	0.04
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	µg/L	<0.02	0.06	0.07	0.59	<0.02
Perfluoropentanoic acid	µg/L	<0.02	0.1	0.1	0.97	<0.02
Perfluorohexanoic acid	µg/L	<0.01	0.55	0.54	3.5	0.02
Perfluoroheptanoic acid	µg/L	<0.01	0.07	0.07	0.53	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01	0.13	0.18	0.78	<0.01
Perfluorononanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	µg/L	<0.01	<0.01	<0.01	0.16	<0.01
8:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	96	101	101	103	98
Surrogate $^{13}C_2$ *PFOA*	%	92	92	91	119	92
Extracted ISTD $^{13}C_3$ *PFBS*	%	97	93	96	97	90
Extracted ISTD $^{18}O_2$ *PFHxS*	%	102	100	98	99	100
Extracted ISTD $^{13}C_4$ *PFOS*	%	108	105	104	100	104

PFAS in Waters Extended						
Our Reference		323268-1	323268-3	323268-4	323268-5	323268-6
Your Reference	UNITS	0902_QC200_230508	0902_QC202_230508	0902_QC203_230509	0902_QC204_230509	0902_QC205_230509
Date Sampled		08/05/2023	08/05/2023	09/05/2023	09/05/2023	09/05/2023
Type of sample		Water	Water	Water	Water	Water
Extracted ISTD $^{13}C_4$ *PFBA*	%	96	92	93	75	86
Extracted ISTD $^{13}C_3$ *PFPeA*	%	93	86	88	94	85
Extracted ISTD $^{13}C_2$ *PFHxA*	%	107	98	103	109	103
Extracted ISTD $^{13}C_4$ *PFHpA*	%	122	109	114	120	114
Extracted ISTD $^{13}C_4$ *PFOA*	%	111	107	109	98	110
Extracted ISTD $^{13}C_5$ *PFNA*	%	108	107	111	103	107
Extracted ISTD $^{13}C_2$ *PFDA*	%	113	109	109	102	113
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	127	115	118	104	115
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	115	107	108	91	114
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	72	65	62	65	69
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	123	115	116	112	121
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	106	96	101	113	102
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	129	108	119	105	123
Extracted ISTD $^{13}C_8$ *FOSA*	%	100	95	94	109	94
Extracted ISTD d_3 *N MeFOSA*	%	107	101	100	110	105
Extracted ISTD d_5 *N EtFOSA*	%	115	114	110	111	112
Extracted ISTD d_7 *N MeFOSE*	%	105	97	93	104	100
Extracted ISTD d_9 *N EtFOSE*	%	108	104	100	87	105
Extracted ISTD d_3 *N MeFOSAA*	%	139	122	130	133	141
Extracted ISTD d_5 *N EtFOSAA*	%	125	106	155	116	119
Total Positive PFHxS & PFOS	µg/L	<0.01	3.7	5.3	13	0.11
Total Positive PFOA & PFOS	µg/L	<0.01	1.0	1.3	1.9	0.04
Total Positive PFAS	µg/L	<0.01	5.4	7.2	23	0.14

PFAS in Waters Extended						
Our Reference		323268-8	323268-10	323268-11	323268-12	323268-13
Your Reference	UNITS	0902_QC207_230509	0902_QC209_230510	0902_QC210_230510	0902_QC211_230510	0902_QC212_230510
Date Sampled		09/05/2023	10/05/2023	10/05/2023	10/05/2023	10/05/2023
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	19/05/2023	19/05/2023	19/05/2023	19/05/2023	19/05/2023
Date analysed	-	19/05/2023	19/05/2023	19/05/2023	19/05/2023	19/05/2023
Perfluorobutanesulfonic acid	µg/L	<0.01	<0.01	0.01	0.16	0.03
Perfluoropentanesulfonic acid	µg/L	<0.01	<0.01	<0.01	0.18	0.02
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01	0.02	0.04	1.7	0.17
Perfluoroheptanesulfonic acid	µg/L	<0.01	<0.01	<0.01	0.04	0.01
Perfluorooctanesulfonic acid PFOS	µg/L	<0.01	0.02	<0.01	0.93	0.65
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	µg/L	<0.02	<0.02	<0.02	0.06	<0.02
Perfluoropentanoic acid	µg/L	<0.02	<0.02	<0.02	0.06	<0.02
Perfluorohexanoic acid	µg/L	<0.01	<0.01	<0.01	0.22	0.04
Perfluoroheptanoic acid	µg/L	<0.01	<0.01	<0.01	0.03	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01	<0.01	<0.01	0.05	0.01
Perfluorononanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
6:2 FTS	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
8:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
10:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	103	103	102	99	101
Surrogate $^{13}C_2$ *PFOA*	%	84	90	89	90	89
Extracted ISTD $^{13}C_3$ *PFBS*	%	95	90	97	97	95
Extracted ISTD $^{18}O_2$ *PFHxS*	%	104	89	100	96	104
Extracted ISTD $^{13}C_4$ *PFOS*	%	107	102	105	106	105
Extracted ISTD $^{13}C_4$ *PFBA*	%	88	83	95	91	94

PFAS in Waters Extended						
Our Reference		323268-8	323268-10	323268-11	323268-12	323268-13
Your Reference	UNITS	0902_QC207_230509	0902_QC209_230510	0902_QC210_230510	0902_QC211_230510	0902_QC212_230510
Date Sampled		09/05/2023	10/05/2023	10/05/2023	10/05/2023	10/05/2023
Type of sample		Water	Water	Water	Water	Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	87	86	90	90	89
Extracted ISTD $^{13}C_2$ *PFHxA*	%	103	102	102	99	104
Extracted ISTD $^{13}C_4$ *PFHpA*	%	119	110	115	114	112
Extracted ISTD $^{13}C_4$ *PFOA*	%	118	108	111	110	109
Extracted ISTD $^{13}C_5$ *PFNA*	%	107	108	109	108	107
Extracted ISTD $^{13}C_2$ *PFDA*	%	116	106	110	108	107
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	134	114	115	121	108
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	113	104	102	111	114
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	63	61	74	66	67
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	122	120	122	104	129
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	105	105	105	102	105
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	132	122	122	117	119
Extracted ISTD $^{13}C_8$ *FOSA*	%	95	93	100	98	97
Extracted ISTD d_3 *N MeFOSA*	%	105	96	104	104	102
Extracted ISTD d_5 *N EtFOSA*	%	111	110	115	111	104
Extracted ISTD d_7 *N MeFOSE*	%	103	95	102	109	101
Extracted ISTD d_9 *N EtFOSE*	%	104	101	105	104	102
Extracted ISTD d_3 *N MeFOSAA*	%	145	128	135	134	132
Extracted ISTD d_5 *N EtFOSAA*	%	148	107	115	129	142
Total Positive PFHxS & PFOS	µg/L	<0.01	0.04	0.04	2.7	0.81
Total Positive PFOA & PFOS	µg/L	<0.01	0.02	<0.01	0.98	0.66
Total Positive PFAS	µg/L	<0.01	0.04	0.05	3.4	0.93

PFAS in Waters Extended		
Our Reference		323268-14
Your Reference	UNITS	0902_QC213_230511
Date Sampled		11/05/2023
Type of sample		Water
Date prepared	-	19/05/2023
Date analysed	-	19/05/2023
Perfluorobutanesulfonic acid	µg/L	0.08
Perfluoropentanesulfonic acid	µg/L	0.04
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.36
Perfluoroheptanesulfonic acid	µg/L	0.01
Perfluorooctanesulfonic acid PFOS	µg/L	0.47
Perfluorodecanesulfonic acid	µg/L	<0.02
Perfluorobutanoic acid	µg/L	0.02
Perfluoropentanoic acid	µg/L	0.03
Perfluorohexanoic acid	µg/L	0.06
Perfluoroheptanoic acid	µg/L	0.01
Perfluorooctanoic acid PFOA	µg/L	0.03
Perfluorononanoic acid	µg/L	<0.01
Perfluorodecanoic acid	µg/L	<0.02
Perfluoroundecanoic acid	µg/L	<0.02
Perfluorododecanoic acid	µg/L	<0.05
Perfluorotridecanoic acid	µg/L	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5
4:2 FTS	µg/L	<0.01
6:2 FTS	µg/L	<0.01
8:2 FTS	µg/L	<0.02
10:2 FTS	µg/L	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	100
Surrogate $^{13}C_2$ *PFOA*	%	92
Extracted ISTD $^{13}C_3$ *PFBS*	%	91
Extracted ISTD $^{18}O_2$ *PFHxS*	%	95
Extracted ISTD $^{13}C_4$ *PFOS*	%	105
Extracted ISTD $^{13}C_4$ *PFBA*	%	95

PFAS in Waters Extended		
Our Reference		323268-14
Your Reference	UNITS	0902_QC213_230511
Date Sampled		11/05/2023
Type of sample		Water
Extracted ISTD $^{13}C_3$ *PFPeA*	%	89
Extracted ISTD $^{13}C_2$ *PFHxA*	%	100
Extracted ISTD $^{13}C_4$ *PFHpA*	%	110
Extracted ISTD $^{13}C_4$ *PFOA*	%	107
Extracted ISTD $^{13}C_5$ *PFNA*	%	106
Extracted ISTD $^{13}C_2$ *PFDA*	%	110
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	111
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	110
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	69
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	117
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	106
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	118
Extracted ISTD $^{13}C_8$ *FOSA*	%	97
Extracted ISTD d_3 *N MeFOSA*	%	105
Extracted ISTD d_5 *N EtFOSA*	%	111
Extracted ISTD d_7 *N MeFOSE*	%	104
Extracted ISTD d_9 *N EtFOSE*	%	99
Extracted ISTD d_3 *N MeFOSAA*	%	124
Extracted ISTD d_5 *N EtFOSAA*	%	128
Total Positive PFHxS & PFOS	µg/L	0.84
Total Positive PFOA & PFOS	µg/L	0.51
Total Positive PFAS	µg/L	1.1

PFAS in Soils Extended				
Our Reference		323268-2	323268-7	323268-9
Your Reference	UNITS	0902_QC201_230508	0902_QC206_230509	0902_QC208_230510
Date Sampled		08/05/2023	09/05/2023	10/05/2023
Type of sample		Soil	Soil	Soil
Date prepared	-	18/05/2023	18/05/2023	18/05/2023
Date analysed	-	18/05/2023	18/05/2023	18/05/2023
Perfluorobutanesulfonic acid	µg/kg	1.1	<0.1	<0.1
Perfluoropentanesulfonic acid	µg/kg	1.3	<0.1	<0.1
Perfluorohexanesulfonic acid - PFHxS	µg/kg	17	<0.1	<0.1
Perfluoroheptanesulfonic acid	µg/kg	5.7	<0.1	<0.1
Perfluorooctanesulfonic acid PFOS	µg/kg	1,700	0.7	0.1
Perfluorodecanesulfonic acid	µg/kg	71	<0.2	<0.2
Perfluorobutanoic acid	µg/kg	2.0	<0.2	<0.2
Perfluoropentanoic acid	µg/kg	3.6	<0.2	<0.2
Perfluorohexanoic acid	µg/kg	5.8	<0.1	<0.1
Perfluoroheptanoic acid	µg/kg	5.4	<0.1	<0.1
Perfluorooctanoic acid PFOA	µg/kg	17	<0.1	<0.1
Perfluorononanoic acid	µg/kg	63	<0.1	<0.1
Perfluorodecanoic acid	µg/kg	460	<0.5	<0.5
Perfluoroundecanoic acid	µg/kg	850	<0.5	<0.5
Perfluorododecanoic acid	µg/kg	1,100	<0.5	<0.5
Perfluorotridecanoic acid	µg/kg	250	<0.5	<0.5
Perfluorotetradecanoic acid	µg/kg	190	<5	<5
4:2 FTS	µg/kg	<0.1	<0.1	<0.1
6:2 FTS	µg/kg	27	<0.1	<0.1
8:2 FTS	µg/kg	710	<0.2	<0.2
10:2 FTS	µg/kg	56	<0.2	<0.2
Perfluorooctane sulfonamide	µg/kg	17	<1	<1
N-Methyl perfluorooctane sulfonamide	µg/kg	<1	<1	<1
N-Ethyl perfluorooctanesulfon amide	µg/kg	<1	<1	<1
N-Me perfluorooctanesulfonamid oethanol	µg/kg	<1	<1	<1
N-Et perfluorooctanesulfonamid oethanol	µg/kg	<5	<5	<5
MePerfluorooctanesulf- amid oacetic acid	µg/kg	<0.2	<0.2	<0.2
EtPerfluorooctanesulf amid oacetic acid	µg/kg	<0.2	<0.2	<0.2
Surrogate $^{13}C_8$ *PFOS*	%	103	102	104
Surrogate $^{13}C_2$ *PFOA*	%	106	110	112
Extracted ISTD $^{13}C_3$ *PFBS*	%	79	86	84
Extracted ISTD $^{18}O_2$ *PFHxS*	%	84	92	89
Extracted ISTD $^{13}C_4$ *PFOS*	%	92	94	91

PFAS in Soils Extended				
Our Reference		323268-2	323268-7	323268-9
Your Reference	UNITS	0902_QC201_230508	0902_QC206_230509	0902_QC208_230510
Date Sampled		08/05/2023	09/05/2023	10/05/2023
Type of sample		Soil	Soil	Soil
Extracted ISTD $^{13}C_4$ *PFBA*	%	83	94	88
Extracted ISTD $^{13}C_3$ *PFPeA*	%	84	89	80
Extracted ISTD $^{13}C_2$ *PFHxA*	%	84	100	92
Extracted ISTD $^{13}C_4$ *PFHpA*	%	81	110	110
Extracted ISTD $^{13}C_4$ *PFOA*	%	82	93	83
Extracted ISTD $^{13}C_5$ *PFNA*	%	74	96	91
Extracted ISTD $^{13}C_2$ *PFDA*	%	84	94	84
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	95	62	97
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	92	74	87
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	73	84	88
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	103	94	87
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	96	95	78
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	74	97	81
Extracted ISTD $^{13}C_8$ *FOSA*	%	55	98	100
Extracted ISTD d_3 *N MeFOSA*	%	65	83	96
Extracted ISTD d_5 *N EtFOSA*	%	64	94	102
Extracted ISTD d_7 *N MeFOSE*	%	62	82	86
Extracted ISTD d_9 *N EtFOSE*	%	65	78	83
Extracted ISTD d_3 *N MeFOSAA*	%	67	120	105
Extracted ISTD d_5 *N EtFOSAA*	%	60	56	102
Total Positive PFHxS & PFOS	µg/kg	1,800	0.7	0.1
Total Positive PFOS & PFOA	µg/kg	1,800	0.7	0.1
Total Positive PFAS	µg/kg	5,600	0.7	0.1

Moisture				
Our Reference		323268-2	323268-7	323268-9
Your Reference	UNITS	0902_QC201_230508	0902_QC206_230509	0902_QC208_230510
Date Sampled		08/05/2023	09/05/2023	10/05/2023
Type of sample		Soil	Soil	Soil
Date prepared	-	17/05/2023	17/05/2023	17/05/2023
Date analysed	-	18/05/2023	18/05/2023	18/05/2023
Moisture	%	50	32	20

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	323268-3
Date prepared	-			19/05/2023	1	19/05/2023	19/05/2023		19/05/2023	19/05/2023
Date analysed	-			19/05/2023	1	19/05/2023	19/05/2023		19/05/2023	19/05/2023
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	103	98
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	113	113
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	122	106
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	97	94
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	102	95
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	107	108
Perfluorobutanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	113	113
Perfluoropentanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	126	124
Perfluorohexanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	109	104
Perfluoroheptanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	98	100
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	100	99
Perfluorononanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	106	102
Perfluorodecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	93	93
Perfluoroundecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	81	97
Perfluorododecanoic acid	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	104	116
Perfluorotridecanoic acid	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	90	100
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	131	126
4:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	97	98
6:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	116	113
8:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	103	103
10:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	96	94
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	114	116
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	96	101
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	81	83
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	106	104
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	110	114
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	89	86
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	109	107
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	97	1	96	100	4	97	100
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	86	1	92	93	1	95	89

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	323268-3
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	96	1	97	103	6	94	97
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	108	1	102	104	2	102	100
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	112	1	108	107	1	109	105
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	98	1	96	97	1	98	89
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	82	1	93	91	2	85	83
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	109	1	107	107	0	107	101
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	141	1	122	120	2	122	110
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	119	1	111	114	3	112	106
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	113	1	108	112	4	111	104
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	117	1	113	119	5	116	112
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	123	1	127	124	2	128	116
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	120	1	115	114	1	115	101
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	76	1	72	70	3	74	81
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	137	1	123	126	2	119	105
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	106	1	106	108	2	101	91
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	126	1	129	128	1	124	109
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	99	1	100	99	1	95	92
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	115	1	107	110	3	110	104
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	130	1	115	117	2	121	115
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	117	1	105	104	1	110	104

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	323268-3
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	112	1	108	103	5	110	105
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	139	1	139	141	1	128	110
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	120	1	125	121	3	121	101

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	14	19/05/2023	19/05/2023		[NT]	[NT]
Date analysed	-			[NT]	14	19/05/2023	19/05/2023		[NT]	[NT]
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	[NT]	14	0.08	0.08	0	[NT]	[NT]
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	[NT]	14	0.04	0.03	29	[NT]	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	[NT]	14	0.36	0.34	6	[NT]	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	[NT]	14	0.01	0.01	0	[NT]	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	[NT]	14	0.47	0.47	0	[NT]	[NT]
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	[NT]	14	<0.02	<0.02	0	[NT]	[NT]
Perfluorobutanoic acid	µg/L	0.02	Org-029	[NT]	14	0.02	0.02	0	[NT]	[NT]
Perfluoropentanoic acid	µg/L	0.02	Org-029	[NT]	14	0.03	0.03	0	[NT]	[NT]
Perfluorohexanoic acid	µg/L	0.01	Org-029	[NT]	14	0.06	0.05	18	[NT]	[NT]
Perfluoroheptanoic acid	µg/L	0.01	Org-029	[NT]	14	0.01	0.01	0	[NT]	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	[NT]	14	0.03	0.03	0	[NT]	[NT]
Perfluorononanoic acid	µg/L	0.01	Org-029	[NT]	14	<0.01	<0.01	0	[NT]	[NT]
Perfluorodecanoic acid	µg/L	0.02	Org-029	[NT]	14	<0.02	<0.02	0	[NT]	[NT]
Perfluoroundecanoic acid	µg/L	0.02	Org-029	[NT]	14	<0.02	<0.02	0	[NT]	[NT]
Perfluorododecanoic acid	µg/L	0.05	Org-029	[NT]	14	<0.05	<0.05	0	[NT]	[NT]
Perfluorotridecanoic acid	µg/L	0.1	Org-029	[NT]	14	<0.1	<0.1	0	[NT]	[NT]
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	[NT]	14	<0.5	<0.5	0	[NT]	[NT]
4:2 FTS	µg/L	0.01	Org-029	[NT]	14	<0.01	<0.01	0	[NT]	[NT]
6:2 FTS	µg/L	0.01	Org-029	[NT]	14	<0.01	<0.01	0	[NT]	[NT]
8:2 FTS	µg/L	0.02	Org-029	[NT]	14	<0.02	<0.02	0	[NT]	[NT]
10:2 FTS	µg/L	0.02	Org-029	[NT]	14	<0.02	<0.02	0	[NT]	[NT]
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	[NT]	14	<0.1	<0.1	0	[NT]	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	[NT]	14	<0.05	<0.05	0	[NT]	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	[NT]	14	<0.1	<0.1	0	[NT]	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	[NT]	14	<0.05	<0.05	0	[NT]	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	[NT]	14	<0.5	<0.5	0	[NT]	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	[NT]	14	<0.02	<0.02	0	[NT]	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	[NT]	14	<0.02	<0.02	0	[NT]	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	[NT]	14	100	100	0	[NT]	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	[NT]	14	92	92	0	[NT]	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	[NT]	14	91	99	8	[NT]	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	[NT]	14	95	97	2	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	[NT]	14	105	105	0	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	[NT]	14	95	96	1	[NT]	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	[NT]	14	89	91	2	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	[NT]	14	100	102	2	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	[NT]	14	110	114	4	[NT]	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	[NT]	14	107	109	2	[NT]	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	[NT]	14	106	107	1	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	[NT]	14	110	112	2	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	[NT]	14	111	109	2	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	[NT]	14	110	107	3	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	[NT]	14	69	73	6	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	[NT]	14	117	107	9	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	[NT]	14	106	107	1	[NT]	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	[NT]	14	118	112	5	[NT]	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	[NT]	14	97	101	4	[NT]	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	[NT]	14	105	104	1	[NT]	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	[NT]	14	111	109	2	[NT]	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	[NT]	14	104	96	8	[NT]	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	[NT]	14	99	100	1	[NT]	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	[NT]	14	124	130	5	[NT]	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	[NT]	14	128	110	15	[NT]	[NT]

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	323268-7
Date prepared	-			18/05/2023	2	18/05/2023	18/05/2023		18/05/2023	18/05/2023
Date analysed	-			18/05/2023	2	18/05/2023	18/05/2023		18/05/2023	18/05/2023
Perfluorobutanesulfonic acid	µg/kg	0.1	Org-029	<0.1	2	1.1	1.0	10	104	95
Perfluoropentanesulfonic acid	µg/kg	0.1	Org-029	<0.1	2	1.3	1.3	0	99	99
Perfluorohexanesulfonic acid - PFHxS	µg/kg	0.1	Org-029	<0.1	2	17	18	6	102	103
Perfluoroheptanesulfonic acid	µg/kg	0.1	Org-029	<0.1	2	5.7	6.2	8	112	104
Perfluorooctanesulfonic acid PFOS	µg/kg	0.1	Org-029	<0.1	2	1700	2600	42	105	108
Perfluorodecanesulfonic acid	µg/kg	0.2	Org-029	<0.2	2	71	100	34	89	97
Perfluorobutanoic acid	µg/kg	0.2	Org-029	<0.2	2	2.0	2	0	104	100
Perfluoropentanoic acid	µg/kg	0.2	Org-029	<0.2	2	3.6	3.2	12	100	99
Perfluorohexanoic acid	µg/kg	0.1	Org-029	<0.1	2	5.8	6.0	3	104	101
Perfluoroheptanoic acid	µg/kg	0.1	Org-029	<0.1	2	5.4	5.6	4	102	102
Perfluorooctanoic acid PFOA	µg/kg	0.1	Org-029	<0.1	2	17	20	16	105	104
Perfluorononanoic acid	µg/kg	0.1	Org-029	<0.1	2	63	86	31	102	94
Perfluorodecanoic acid	µg/kg	0.5	Org-029	<0.5	2	460	580	23	105	101
Perfluoroundecanoic acid	µg/kg	0.5	Org-029	<0.5	2	850	1300	42	104	94
Perfluorododecanoic acid	µg/kg	0.5	Org-029	<0.5	2	1100	1500	31	103	100
Perfluorotridecanoic acid	µg/kg	0.5	Org-029	<0.5	2	250	380	41	90	96
Perfluorotetradecanoic acid	µg/kg	5	Org-029	<5	2	190	280	38	113	110
4:2 FTS	µg/kg	0.1	Org-029	<0.1	2	<0.1	<0.1	0	99	103
6:2 FTS	µg/kg	0.1	Org-029	<0.1	2	27	13	70	99	92
8:2 FTS	µg/kg	0.2	Org-029	<0.2	2	710	990	33	99	104
10:2 FTS	µg/kg	0.2	Org-029	<0.2	2	56	64	13	95	107
Perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	2	17	27	45	105	105
N-Methyl perfluorooctane sulfonamide	µg/kg	1	Org-029	<1	2	<1	<1	0	108	107
N-Ethyl perfluorooctanesulfon amide	µg/kg	1	Org-029	<1	2	<1	<1	0	106	108
N-Me perfluorooctanesulfonamid oethanol	µg/kg	1	Org-029	<1	2	<1	<1	0	139	114
N-Et perfluorooctanesulfonamid oethanol	µg/kg	5	Org-029	<5	2	<5	<5	0	131	108
MePerfluorooctanesulf- amid oacetic acid	µg/kg	0.2	Org-029	<0.2	2	<0.2	<0.2	0	100	102
EtPerfluorooctanesulf amid oacetic acid	µg/kg	0.2	Org-029	<0.2	2	<0.2	<0.2	0	115	111
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	101	2	103	98	5	104	104
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	104	2	106	105	1	102	105

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	323268-7
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	98	2	79	90	13	95	90
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	106	2	84	90	7	102	89
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	105	2	92	86	7	102	86
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	104	2	83	86	4	100	88
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	105	2	84	90	7	100	90
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	102	2	84	88	5	99	88
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	103	2	81	84	4	100	85
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	105	2	82	86	5	101	89
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	105	2	74	70	6	102	92
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	104	2	84	85	1	99	92
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	106	2	95	80	17	106	82
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	105	2	92	79	15	96	94
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	89	2	73	61	18	78	99
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	100	2	103	104	1	95	103
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	96	2	96	101	5	91	92
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	95	2	74	77	4	95	83
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	102	2	55	52	6	94	78
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	107	2	65	61	6	103	84
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	109	2	64	61	5	106	88
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	101	2	62	61	2	92	79

QUALITY CONTROL: PFAS in Soils Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	323268-7
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	100	2	65	64	2	86	83
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	95	2	67	62	8	97	78
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	91	2	60	50	18	91	64

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

PFAS: For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

Envirolab Services Pty Ltd
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12 Ashley St Chatswood NSW 2067
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customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	Jessica Roy

Sample Login Details

Your reference	NSW_0902_PFASOMP_23
Envirolab Reference	323268
Date Sample Received	16/05/2023
Date Instructions Received	16/05/2023
Date Results Expected to be Reported	23/05/2023

Sample Condition

Samples received in appropriate condition for analysis	No
No. of Samples Provided	11 Water, 3 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	3
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Samples received floating in ice water

Please contact the laboratory within 24 hours if you wish to cancel the aformentioned testing. Otherwise testing will proceed as per the COC and hence invoiced accordingly.

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	PFAS in Waters Extended	PFAS in Soils Extended
0902_QC200_230508	✓	
0902_QC201_230508		✓
0902_QC202_230508	✓	
0902_QC203_230509	✓	
0902_QC204_230509	✓	
0902_QC205_230509	✓	
0902_QC206_230509		✓
0902_QC207_230509	✓	
0902_QC208_230510		✓
0902_QC209_230510	✓	
0902_QC210_230510	✓	
0902_QC211_230510	✓	
0902_QC212_230510	✓	
0902_QC213_230511	✓	

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

CHAIN OF CUSTODY FORM

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National phone number 1300 424 344

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Brisbane Office - Envirolab Services
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Darwin Office - Envirolab Services
Unit 20/119 Reichardt Road, Winnellie, NT 0820
✆ 08 8967 1201 | ✉ darwin@envirolab.com.au

Company:	AECOM	Client Project Name/Number/Site etc (ie report title):	NSW_0902_PFASOMP_23
Contact Person:	Jessica Roy	PO No. (if applicable):	60612562_5.1
Project Mgr:	Geoff Tredinnick	Envirolab Quote No. :	
Sampler:	Nicola Tomlin, Jack Rawsthorne	Date results required:	
Address:	Level 6, 420 George St, Sydney, NSW, 2000	Or choose:	☑ Standard ☐ Same Day ☐ 1 day ☐ 2 day ☐ 3 day
Phone:	Mob: 0402 163 223	Note: Inform lab in advance if urgent turnaround is required - surcharges apply	
Email Results to:	geoff.tredinnick@aecom.com; jessica.roy@aecom.com; derp.labreports@esdat.com.au	Additional report format:	☑ Esdat ☐ Equis
Email Invoice to:	geoff.tredinnick@aecom.com; AP_CustomerService.ANZ@aecom.com	Lab Comments:	

Sample information					Tests Required																Comments
Envirolab Sample ID (Lab use only)	Client Sample ID or Information	Depth	Date Sampled	Type of Sample	PFAS Extended Suite - Routine Level																Provide as much information about the sample as you can
1	0902_QC200_230508	-	8 /05/2023	Water	X																
2	0902_QC201_230508	-	8 /05/2023	Soil ~~Water~~	X																
3	0902_QC202_230508	-	8 /05/2023	Water	X																
4	0902_QC203_230509	-	9 /05/2023	Water	X																
5	0902_QC204_230509	-	9 /05/2023	Water	X																
6	0902_QC205_230509	-	9 /05/2023	Water	X																
7	0902_QC206_230509	-	9 /05/2023	Soil ~~Water~~	X																
8	0902_QC207_230509	-	9 /05/2023	Water	X																
9	0902_QC208_230510	-	10 /05/2023	Soil ~~Water~~	X																
10	0902_QC209_230510	-	10 /05/2023	Water	X																
11	0902_QC210_230510	-	10 /05/2023	Water	X																
12	0902_QC211_230510	-	10 /05/2023	~~Water~~/Soil	X																
13	0902_QC212_230510	-	10 /05/2023	Water ~~Soil~~	X																
14	0902_QC213_230511	-	11 /05/2023	Water ~~Soil~~	X																

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): AECOM	Received by (Company):	Envirolab	*Lab Use Only*
Print Name: Nicola Tomlin	Print Name:	Nancy Zhang	Job number: 323268 — Cooling: Ice / Ice pack / None
Date & Time: 15/5/23 1700	Date & Time:	16/05/2023 14:40	Temperature: 3°C — Security seal: Intact / Broken / None
Signature:	Signature:		TAT Req - SAME day / 1 / 2 / 3 / 4 / STD

Please send ESdat files to DERP.labreports@esdat.com.au and ensure that the files use the PROJECT NAME

Appendix C

Tables

Table T1 - Groundwater Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
MW001	08 Nov 2019	201911_AECOM_OMP	Pale brown, moderat to high turbidity, no odour	2.20	23.2	1,481.0	6.21	80.4	286.2
MW001	14 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Clear; Odour: No odour	0.28	17.7	1,166.0	6.19	-46.2	159.6
MW001	12 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.43	21.0	1,146.0	6.49	68.4	274.2
MW001	06 May 2021	202105_AECOM_OMP	Brown, medium turbidity, no odour	2.69	18.8	569.0	6.51	76.6	282.4
MW001	29 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No sheen	2.45	20.0	1,172.0	6.55	27.0	232.8
MW001	26 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	1.06	19.7	1,048.0	6.85	108.5	314.3
MW001	11 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.01	23.3	867.0	6.56	80.1	285.9
MW001	11 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	0.89	18.7	350.0	6.26	23.0	228.8
MW002	08 Nov 2019	201911_AECOM_OMP	Pale brown/organge, high turbidity, silt, no odour	0.70	18.6	3,515.8	6.75	39.2	245.0
MW002	14 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Clear; Odour: No odour	1.69	16.6	3,011.0	6.72	-25.1	180.7
MW002	12 Nov 2020	202011_AECOM_OMP	Brown, Turbid Turbidity, Sediment in hydrasleeve , No odours or sheen noted	1.62	19.9	2,840.0	6.84	38.3	244.1
MW002	06 May 2021	202105_AECOM_OMP	Brown, low turbidity, no odour	4.57	18.4	3,604.0	7.04	76.9	282.7
MW002	29 Nov 2021	202211_AECOM_OMP	Light Grey, Low turbidity, No odour, No sheen	1.29	18.8	3,158.0	6.76	-29.1	176.7
MW002	26 May 2022	202205_AECOM_OMP	Light brown, medium turbidity, no sheen, no odour, sediment on IP	1.40	19.5	3,062.0	7.06	137.8	343.6
MW002	11 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	2.26	21.6	1,602.0	6.87	42.4	248.2
MW002	11 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.20	18.1	2,892.0	6.87	43.3	249.1
MW004	25 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	0.51	19.5	3,050.0	6.65	24.9	230.7
MW004	26 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	1.02	18.2	2,557.0	6.57	28.8	234.6
MW004	11 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.74	19.2	1,399.0	6.49	32.2	238.0
MW004	11 May 2023	202305_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	1.51	17.6	1,893.0	6.45	17.4	223.2
MW005	08 Nov 2019	201911_AECOM_OMP	Clear, very low turbidity, no odour	0.41	19.2	2,577.2	6.48	-35.8	170.0
MW005	14 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: Hydrogen Sulphide odour	1.25	15.1	20,313.0	6.46	-7.2	198.6
MW005	12 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	2.53	20.6	20,974.0	6.87	83.7	289.5
MW005	06 May 2021	202105_AECOM_OMP	Brown, medium turbidity, no odour	1.64	18.0	20,873.0	6.55	28.2	234.0
MW005	25 Nov 2021	202211_AECOM_OMP	Light Brown, Clear turbidity, No odour, No sheen	0.69	20.5	20,200.0	6.35	104.4	310.2
MW005	26 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour	6.51	17.6	99.6	6.61	59.0	264.8
MW005	11 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	2.21	18.6	15,124.0	6.46	55.8	261.6
MW005	11 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.39	19.0	2,081.0	6.51	6.6	212.4
MW006	08 Nov 2019	201911_AECOM_OMP	Pale brown, high turbidity, minor suspended organic solids	0.79	17.5	3,419.6	7.35	-68.8	137.0
MW006	14 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: Hydrogen Sulphide odour	1.32	17.0	1,934.0	7.44	-197.3	8.5
MW006	12 Nov 2020	202011_AECOM_OMP	Clear, Medium Turbidity, Weak Organic Odour, No sheen noted, black suspended solids	0.79	19.0	1,397.0	7.55	180.7	386.5
MW007	13 Nov 2019	201911_AECOM_OMP	Pale brown, moderate turbidity, no odour	1.20	19.8	7,137.2	6.66	92.1	297.9
MW007	11 May 2020	202005_AECOM_OMP	Turbidity: Turbid; Sheen: No sheen; Colour: Other; Odour: No odour	-	-	5,143.0	-	-77.9	127.9
MW007	10 Nov 2020	202011_AECOM_OMP	Light Brown, Low Turbidity, No odours or sheen noted	2.81	21.1	4,960.0	6.87	49.1	254.9
MW007	03 May 2021	202105_AECOM_OMP	Brown, turbid, no odour, sediment in bottom of hydrasleeve	2.31	19.1	5,499.0	6.91	14.1	219.9
MW007	23 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	3.33	21.3	5,098.0	7.25	70.3	276.1
MW007	25 May 2022	202205_AECOM_OMP	Light brown, no turbidity, no sheen, no odour	2.97	21.7	5,276.0	7.08	154.7	360.5
MW007	02 Nov 2022	202211_AECOM_OMP	Ligh yellow, low turbidity, no odour, no sheen.	4.33	20.1	471.5	6.31	113.9	319.7
MW007	15 May 2023	202305_AECOM_OMP	Light grey, no turbidity, no odour, no sheen.	3.37	19.6	3,045.0	6.60	44.2	250.0
MW008	14 Nov 2019	201911_AECOM_OMP	Very pale brown, minor suspended silt, low turbidity, slight organic odour.	0.17	19.9	3,790.4	6.17	-104.9	100.9
MW008	11 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Light Grey; Odour: No odour	-	-	3,275.0	-	-110.8	95.0
MW008	10 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.44	19.8	3,184.0	6.13	1.6	207.4
MW008	03 May 2021	202105_AECOM_OMP	Brown, turbid, no odour	1.69	18.6	3,587.0	6.09	0.7	206.5
MW008	23 Nov 2021	202211_AECOM_OMP	Dark Red, Medium turbidity, No odour, No sheen	2.29	20.7	2,868.0	6.36	73.2	279.0
MW008	25 May 2022	202205_AECOM_OMP	Clear, no turbidity, no sheen, organic odour, sediment on IP	1.48	19.0	3,032.0	6.55	13.0	218.8
MW008	02 Nov 2022	202211_AECOM_OMP	Ligh yellow, low turbidity, no odour, no sheen. Silt at base of hydrasleeve.	1.03	22.0	3,215.0	6.59	29.4	235.2
MW008	12 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	0.97	18.9	3,637.0	6.27	-24.7	181.1
MW009	03 May 2021	202105_AECOM_OMP	Brown, turbid, no odour, bailer grab sample taken	2.83	19.0	738.0	6.51	30.4	236.2
MW009	23 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	1.71	21.0	3,967.0	6.33	79.3	285.1
MW009	25 May 2022	202205_AECOM_OMP	Clear, no turbidity, no sheen, no odour	1.15	20.3	4,630.0	6.28	166.1	371.9
MW009	02 Nov 2022	202211_AECOM_OMP	Light grey, low turbidity, no odour, no sheen.	1.87	20.9	6,507.0	6.18	173.6	379.4
MW009	12 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.71	20.2	7,451.0	6.01	23.8	229.6
MW010	14 Nov 2019	201911_AECOM_OMP	Pale brown/orange, mod-high turbidity, no odour	0.20	20.1	1,133.8	6.34	85.1	290.9
MW010	11 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Brown; Odour: No odour	-	-	1,052.0	-	-127.7	78.1
MW010	10 Nov 2020	202011_AECOM_OMP	Brown, Medium Turbidity, No odours or sheen noted	0.94	20.1	990.0	6.47	17.8	223.6
MW010	03 May 2021	202105_AECOM_OMP	Clear, low to medium turbidity, no odour	8.38	19.3	1,421.0	6.16	64.3	270.1
MW010	23 Nov 2021	202211_AECOM_OMP	Light Brown, Turbid, No odour, No sheen	0.00	22.7	1,185.0	6.61	-14.0	191.8
MW010	25 May 2022	202205_AECOM_OMP	Clear, no turbidity, no sheen, no odour, sediment on IP.	1.95	19.4	1,041.0	6.53	54.6	260.4
MW010	02 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	2.09	22.0	1,019.0	6.46	67.6	273.4
MW010	12 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	0.87	20.8	1,359.0	6.39	47.5	253.3
MW012	08 Nov 2019	201911_AECOM_OMP	Pale-dark brown, moderate to high turbidity, brown suspended solids, no odour	2.79	20.2	1,753.6	6.07	-92.9	112.9
MW012	14 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Light Brown; Odour: Organic odour	1.20	18.3	1,776.0	5.84	-82.2	123.6
MW012	12 Nov 2020	202011_AECOM_OMP	Pale Brown, High Turbidity, No odours or sheen noted	2.82	18.6	2,642.0	6.29	-16.5	189.3
MW012	06 May 2021	202105_AECOM_OMP	Brown to grey, high turbidity, no odour, sediment in hydrasleeve	1.44	19.5	1,605.0	6.05	48.2	254.0
MW012	29 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	4.28	18.7	1,847.0	6.76	33.2	239.0
MW012	27 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour, well casing observed to be damaged.	2.43	17.8	3,604.0	6.32	138.2	344.0
MW012	18 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.71	19.1	2,936.0	6.18	55.1	260.9

Table T1 - Groundwater Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
MW012	11 May 2023	202305_AECOM_OMP	Ligh yellow, medium turbidity, no odour, no sheen.	2.33	16.6	8,434.0	6.13	73.7	279.5
MW013	08 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.27	17.3	1,673.6	5.90	45.9	251.7
MW013	14 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Light Yellow; Odour: No odour	1.31	17.7	1,174.0	5.87	6.9	212.7
MW013	12 Nov 2020	202011_AECOM_OMP	Pale Brown, High Turbidity, No odours or sheen noted	1.42	18.8	928.0	6.23	-0.5	205.3
MW013	06 May 2021	202105_AECOM_OMP	Brown to yellow, medium turbidity, no odour	1.47	19.1	1,253.0	6.34	34.0	239.8
MW013	29 Nov 2021	202211_AECOM_OMP	Orange / Brown, Medium turbidity, No odour, No sheen	1.29	17.7	1,028.0	6.20	8.0	213.8
MW013	27 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	0.92	18.3	1,003.0	6.33	132.2	338.0
MW013	18 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.55	20.2	915.0	6.21	34.1	239.9
MW013	11 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	2.07	17.9	999.0	6.05	70.8	276.6
MW014	08 Nov 2019	201911_AECOM_OMP	Pale brown, moderate turbidity, no odour	0.18	19.5	840.8	6.66	68.0	273.8
MW014	14 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Clear; Odour: No odour	2.77	18.8	763.0	6.85	-52.0	153.8
MW014	12 Nov 2020	202011_AECOM_OMP	Pale Brown, Medium to High Turbidity, No odours or sheen noted	2.20	20.8	739.0	6.83	59.0	264.8
MW014	06 May 2021	202105_AECOM_OMP	Grey, low turbidity, no odour	9.43	20.1	913.0	7.04	28.7	234.5
MW014	29 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	2.81	19.5	826.0	6.95	-1.2	204.6
MW014	27 May 2022	202205_AECOM_OMP	Light grey, medium turbidity, no sheen, no odour, sediment on IP	1.56	19.3	784.0	7.19	128.4	334.2
MW014	18 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.38	24.4	646.0	6.89	60.9	266.7
MW014	11 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.95	19.0	794.0	7.05	18.3	224.1
MW015	08 Nov 2019	201911_AECOM_OMP	Light brown, moderate turbidity, no odour	2.10	21.8	735.0	6.62	122.8	328.6
MW015	14 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	1.11	18.9	349.1	6.65	-144.0	61.8
MW015	12 Nov 2020	202011_AECOM_OMP	Pale Brown, High Turbidity, Suspended Solids, No odours or sheen noted	1.32	20.1	359.0	6.90	-52.4	153.4
MW015	06 May 2021	202105_AECOM_OMP	Grey, low turbidity, no odour	9.00	19.9	370.0	8.92	-82.6	123.2
MW015	29 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	0.12	18.8	422.9	6.75	-73.5	132.3
MW015	27 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour, sediment on IP	0.52	19.9	610.0	6.86	84.5	290.3
MW015	18 Nov 2022	202211_AECOM_OMP	Light grey, low turbidity, no odour, no sheen.	1.97	22.6	67.6	6.58	-4.2	201.6
MW015	11 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	2.52	18.3	598.0	6.75	-73.0	132.8
MW016	08 Nov 2019	201911_AECOM_OMP	Clear, lwo turbidity, no odour	0.69	20.0	1,693.1	7.60	-61.7	144.1
MW016	14 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	2.52	19.2	1,939.0	7.30	-76.6	129.2
MW016	12 Nov 2020	202011_AECOM_OMP	Pale Brown, High Turbidity, Sampled with bailer, No odours or sheen noted	2.48	19.0	1,804.0	7.45	-35.7	170.1
MW016	06 May 2021	202105_AECOM_OMP	Clear, low to medium turbidity, no odour, black supended solids	3.90	19.1	2,033.0	7.64	2.9	208.7
MW016	29 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	0.92	19.1	1,921.0	7.47	-81.2	124.6
MW016	26 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour	2.27	17.0	1,599.0	7.65	127.9	333.7
MW016	11 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.04	17.8	1,446.0	7.60	67.0	272.8
MW016	11 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	2.34	16.9	1,808.0	7.71	75.2	281.0
MW017	08 Nov 2019	201911_AECOM_OMP	Clear to very pale brown, moderate turbidity, suspended solids, no odour	0.24	18.4	449.9	7.18	30.9	236.7
MW017	14 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Grey; Odour: Slight Organic odour	1.59	18.8	1,915.0	6.20	-11.6	194.2
MW017	12 Nov 2020	202011_AECOM_OMP	Clear, Low to Medium Turbidity, Organic Odour, No sheen noted, Sediment in hydrasleeve, trace suspended solids	1.50	17.7	1,991.0	6.79	-13.6	192.2
MW017	06 May 2021	202105_AECOM_OMP	Yellow, low turbidity, no odour	3.25	19.2	3,539.0	7.10	57.5	263.3
MW017	29 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	0.92	17.1	3,337.0	6.79	-39.0	166.8
MW017	27 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	1.26	18.4	3,597.0	7.48	156.7	362.5
MW017	18 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.55	19.2	3,110.0	7.15	61.8	267.6
MW017	11 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	2.31	17.8	3,821.0	7.21	81.8	287.6
MW020	11 Nov 2019	201911_AECOM_OMP	Clear to pale brown, suspended organics, low turbidity, no odour	0.20	19.9	2,555.6	6.29	-148.2	57.6
MW020	13 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	1.56	21.1	704.0	5.42	120.6	326.4
MW020	09 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.97	18.4	699.0	7.15	37.4	243.2
MW020	05 May 2021	202105_AECOM_OMP	Brown, medium turbidity, no odour	1.34	20.4	370.8	5.68	114.2	320.0
MW020	24 Nov 2021	202211_AECOM_OMP	Clear, Low turbidity, No odour, No sheen	1.30	23.8	441.8	5.73	184.2	390.0
MW020	27 May 2022	202205_AECOM_OMP	Clear, no turbidity, no sheen, no odour	1.23	19.6	2,335.0	6.71	116.6	322.4
MW020	08 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	0.94	20.1	2,201.0	6.96	43.2	249.0
MW020	08 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.05	19.0	2,509.0	6.80	-25.7	180.1
MW021	11 Nov 2019	201911_AECOM_OMP	Pale brown, moderate turbidity, no odour	0.34	19.7	817.6	6.66	91.5	297.3
MW021	13 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Grey / Brown; Odour: No odour	1.21	20.1	545.0	6.23	68.0	273.8
MW021	09 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.24	18.7	366.6	5.92	144.5	350.3
MW021	05 May 2021	202105_AECOM_OMP	Light brown, low turbidity, no odour	2.22	19.2	657.0	6.56	76.9	282.7
MW021	24 Nov 2021	202211_AECOM_OMP	Light Grey, Low turbidity, Weal organic odour, No sheen, gatic damaged	1.94	22.2	678.0	6.69	90.9	296.7
MW021	27 May 2022	202205_AECOM_OMP	Brown, turbid, no sheen, no odour, sediment on IP.	1.17	18.8	605.0	6.75	103.5	309.3
MW021	08 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.60	20.7	503.0	6.54	26.5	232.3
MW021	08 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	0.81	19.9	972.0	6.58	13.0	218.8
MW022	11 Nov 2019	201911_AECOM_OMP	Pale brown, low - moderate turbidty, no odour	0.95	21.7	430.0	6.64	-43.4	162.4
MW022	13 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Grey; Odour: Organic odour, suspended solids	1.23	17.9	522.0	6.41	-63.0	142.8
MW022	09 Nov 2020	202011_AECOM_OMP	Orange-brown tinge, Medium Turbidity, No odours or sheen noted	1.43	17.8	345.9	6.70	13.5	219.3
MW022	05 May 2021	202105_AECOM_OMP	Brown, high tubidity, no odour	1.37	17.2	67.4	6.97	-61.2	144.6
MW022	22 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, Biosheen Appearance	1.07	17.4	2,874.0	7.11	-65.6	140.2
MW022	30 May 2022	202205_AECOM_OMP	Light yellow, medium turbidity, no sheen, no odour	1.15	17.5	3,298.0	7.06	63.9	269.7
MW022	08 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.52	24.9	2,938.0	6.93	-57.3	148.5
MW022	08 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	3.02	15.8	2,300.0	6.81	26.9	232.7
MW023	11 Nov 2019	201911_AECOM_OMP	Clear, suspended solids (black), low-moderate turbidity, organic smell	0.13	18.6	1,476.1	7.29	212.5	418.3
MW023	13 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	1.01	18.9	421.6	6.98	21.8	227.6

Table T1 - Groundwater Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
MW023	09 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	5.08	17.5	673.0	7.21	83.1	288.9
MW023	05 May 2021	202105_AECOM_OMP	Light brown, low turbidity, no odour	3.14	17.3	969.0	7.57	54.3	260.1
MW023	22 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour	5.30	16.9	983.0	7.89	75.0	280.8
MW023	27 May 2022	202205_AECOM_OMP	Light brown, medium turbidity, no sheen, no odour	2.40	16.6	1,063.0	7.25	112.7	318.5
MW023	08 Nov 2022	202211_AECOM_OMP	Ligh yellow, low turbidity, no odour, no sheen.	1.19	19.5	831.0	6.83	56.9	262.7
MW023	08 May 2023	202305_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	3.86	16.4	986.0	7.52	75.0	280.8
MW024	14 Nov 2019	201911_AECOM_OMP	Pale yellow/brown, moderate turbidity, no odour	0.20	20.5	5,387.6	6.25	-126.7	79.1
MW024	11 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Light Brown; Odour: No odour	-	-	4,695.0	-	-131.7	74.1
MW024	10 Nov 2020	202011_AECOM_OMP	Light Brown, Medium Turbidity, No odours or sheen noted	1.12	22.7	4,921.0	6.13	-4.3	201.5
MW024	03 May 2021	202105_AECOM_OMP	Grey to brown cloudy, low turbidity, no odour	2.00	20.0	5,052.0	6.21	56.2	262.0
MW024	23 Nov 2021	202211_AECOM_OMP	Clear, Clear turbidity, No odour, No sheen	0.86	21.0	4,355.0	6.46	59.2	265.0
MW024	25 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, organic odour, water observed in gatic above TOC. Removed prior to opening	1.58	21.0	4,473.0	6.55	128.0	333.8
MW024	02 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.03	21.4	2,656.0	6.31	90.0	295.8
MW024	12 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.35	14.0	3,889.0	6.25	133.3	339.1
MW025	13 Nov 2019	201911_AECOM_OMP	Pale brown, moderate turbidity, no odour	0.17	22.1	3,329.0	6.28	-21.0	184.8
MW025	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: Hydrogen Sulphide odour	0.48	21.5	2,166.0	6.24	-90.8	115.0
MW025	11 Nov 2020	202011_AECOM_OMP	Light Brown, Medium Turbidity, No odours or sheen noted	1.63	23.3	2,329.0	6.68	2.9	208.7
MW025	04 May 2021	202105_AECOM_OMP	Clear, no odour, low to medium turbidity	2.41	20.6	2,204.0	6.48	76.4	282.2
MW025	22 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	0.58	22.1	2,754.0	6.70	94.7	300.5
MW025	24 May 2022	202205_AECOM_OMP	Light brown, medium turbidity, no sheen, no odour	1.70	19.7	2,142.0	6.31	80.9	286.7
MW025	07 Nov 2022	202211_AECOM_OMP	Clear, low turbidity, no odour, no sheen. Silt at base of hydrasleeve.	2.46	21.6	2,121.0	6.44	79.9	285.7
MW025	09 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	3.99	20.6	196.8	7.26	28.2	234.0
MW026	13 Nov 2019	201911_AECOM_OMP	Very pale brown, moderate turbidity, no odour	0.28	21.8	949.7	6.71	97.2	303.0
MW026	11 May 2020	202005_AECOM_OMP	Turbidity: Turbid; Sheen: No sheen; Colour: Brown; Odour: No odour	1.06	21.1	650.0	6.44	48.2	254.0
MW026	11 Nov 2020	202011_AECOM_OMP	Light Brown, Medium Turbidity, No odours or sheen noted	1.80	22.0	480.2	6.36	57.6	263.4
MW026	04 May 2021	202105_AECOM_OMP	Brown, medium to high turbidity, no odour	2.62	19.5	899.0	6.72	70.2	276.0
MW026	22 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	1.51	20.5	828.0	6.80	131.9	337.7
MW026	24 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour, water observed in gatic above TOC. Removed prior to opening	1.85	20.7	791.0	6.57	3.6	209.4
MW026	07 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.87	23.2	428.1	6.70	95.5	301.3
MW026	12 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	2.02	18.3	853.0	6.75	99.2	305.0
MW027	13 Nov 2019	201911_AECOM_OMP	Pale brown, moderate turbidity, no odour	0.60	20.5	2,321.4	6.27	154.5	360.3
MW027	11 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Yellow / Brown; Odour: No odour	1.63	19.7	498.0	7.21	-81.8	124.0
MW027	10 Nov 2020	202011_AECOM_OMP	Light Brown, Low Turbidity, Sediment in hydrasleeve , No odours or sheen noted	2.19	21.3	1,482.0	6.14	58.9	264.7
MW027	03 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	2.49	19.6	1,893.0	6.34	70.8	276.6
MW027	23 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	1.64	22.3	2,066.0	6.29	142.5	348.3
MW027	25 May 2022	202205_AECOM_OMP	Light brown, medium turbidity, no sheen, no odour, sediment at bottom	1.75	19.9	2,540.0	6.24	189.6	395.4
MW027	02 Nov 2022	202211_AECOM_OMP	Ligh yellow, medium turbidity, no odour, no sheen.	2.62	20.3	3,591.0	6.27	107.7	313.5
MW028	13 Nov 2019	201911_AECOM_OMP	Very pale yellow, moderate turbidity, no odour	0.82	20.6	2,245.0	7.43	104.5	310.3
MW028	23 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	1.95	21.3	984.0	7.90	78.0	283.8
MW028	25 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour, water observed in gatic above TOC. Removed prior to opening	2.12	20.3	1,618.0	7.75	124.7	330.5
MW028	02 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.51	19.6	1,797.0	7.73	38.1	243.9
MW028	12 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	0.92	18.9	1,843.0	7.49	108.2	314.0
MW030	14 Nov 2019	201911_AECOM_OMP	Clear-pale brown, slight organic odour, low-moderate turbidity, suspended solids, dead ants	0.18	20.8	1,702.1	6.40	-19.3	186.5
MW030	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Light Brown; Odour: No odour	0.61	17.4	1,466.0	6.43	60.2	266.0
MW030	11 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.08	21.8	1,313.0	6.52	20.9	226.7
MW030	03 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	2.79	20.2	1,492.0	6.62	-15.1	190.7
MW030	23 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	1.10	20.6	1,411.0	6.56	23.4	229.2
MW030	26 May 2022	202205_AECOM_OMP	Light brown, medium turbidity, no sheen, no odour	2.25	17.8	1,188.0	6.31	150.0	355.8
MW030	11 Nov 2022	202211_AECOM_OMP	Light grey, low turbidity, no odour, no sheen.	1.15	18.5	926.0	6.37	50.2	256.0
MW030	08 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	0.94	19.7	1,187.0	6.26	-79.8	126.0
MW032	28 Nov 2019	201911_AECOM_OMP	Clear, Low turbidity, no odour	0.06	22.0	1,406.0	6.85	86.0	291.8
MW032	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	0.07	21.8	1,625.0	6.83	-90.5	115.3
MW032	11 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, Sedinment in hydrasleeve, No odours or sheen noted	2.80	22.1	1,351.0	6.89	72.9	278.7
MW032	05 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	2.88	20.9	1,747.0	6.98	69.4	275.2
MW032	24 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	1.66	26.5	1,608.0	6.98	108.1	313.9
MW032	24 May 2022	202205_AECOM_OMP	Yellow, low turbidity, no sheen, no odour, water observed in gatic below TOC. Removed prior to opening	5.12	21.9	772.0	7.10	118.2	324.0
MW032	10 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.82	22.1	1,148.0	6.98	61.1	266.9
MW032	15 May 2023	202305_AECOM_OMP	Light grey, no turbidity, no odour, no sheen.	2.32	21.6	1,365.0	6.92	4.0	209.8
MW033	28 Nov 2019	201911_AECOM_OMP	Light Brown, moderate turbidity, no odour	0.06	21.4	1,425.0	6.92	90.4	296.2
MW033	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	0.98	21.3	798.0	6.98	-4.4	201.4
MW033	11 Nov 2020	202011_AECOM_OMP	Pale Brown, Low Turbidity, No odours or sheen noted	5.63	22.0	346.7	7.36	56.4	262.2
MW033	05 May 2021	202105_AECOM_OMP	Brown, medium turbidity, no odour, hydrasleeve failed, bailer grab sample taken	1.94	20.5	1,241.0	7.16	59.3	265.1
MW033	24 Nov 2021	202211_AECOM_OMP	Light Brown, Turbid, No odour, No sheen	3.15	23.9	229.8	6.91	138.0	343.8
MW033	24 May 2022	202205_AECOM_OMP	Clear, no turbidity, no sheen, no odour, sediment at bottom, water observed in gatic below TOC. Removed prior to opening	4.33	22.2	149.7	6.88	121.1	326.9
MW033	10 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	5.59	22.1	104.5	7.57	63.7	269.5
MW033	15 May 2023	202305_AECOM_OMP	Ligh yellow, no turbidity, no odour, no sheen.	2.22	21.5	1,108.0	7.25	-39.3	166.5
MW034	28 Nov 2019	201911_AECOM_OMP	Clear, Low turbidity, no odour	1.79	21.4	547.0	7.07	105.7	311.5

Table T1 - Groundwater Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
MW034	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	0.21	20.9	1,508.0	6.99	-187.7	18.1
MW034	11 Nov 2020	202011_AECOM_OMP	Light grey, Low to Medium Turbidity, Slight Hydrogen Sulphide odour, No sheen noted	1.81	21.5	1,123.0	7.16	-113.6	92.2
MW034	05 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	1.36	20.3	1,534.0	6.85	81.6	287.4
MW034	24 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	4.54	25.7	250.1	7.30	124.1	329.9
MW034	24 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour, water observed in gatic above TOC. Removed prior to opening	1.72	21.1	609.0	7.07	34.3	240.1
MW034	10 Nov 2022	202211_AECOM_OMP	Clear, low turbidity, no odour, biosheen.	2.58	21.8	903.0	7.08	-23.6	182.2
MW034	15 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.34	21.0	1,281.0	7.14	-65.2	140.6
MW036	11 Nov 2019	201911_AECOM_OMP	Pale brown, low - moderate turbidity, no odour	0.11	19.9	1,830.3	6.51	66.4	272.2
MW036	13 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Light Grey; Odour: No odour	0.99	18.8	1,566.0	6.62	85.3	291.1
MW036	09 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	2.34	18.9	1,493.0	6.66	58.2	264.0
MW036	07 May 2021	202105_AECOM_OMP	Yellow-brown, low turbidity, no odour	4.04	19.1	685.0	6.88	70.0	275.8
MW036	22 Nov 2021	202211_AECOM_OMP	Clear, Low turbidity, No odour, No sheen	5.01	19.0	1,513.0	7.36	52.4	258.2
MW036	27 May 2022	202205_AECOM_OMP	Clear, no turbidity, no sheen, hydrocarbon odour, sediment on IP	0.65	20.4	1,695.0	6.81	150.9	356.7
MW036	08 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.55	21.8	1,379.0	6.59	94.2	300.0
MW036	08 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.83	19.7	1,350.0	6.42	14.6	220.4
MW040	13 Nov 2019	201911_AECOM_OMP	Very pale brown, moderate turbidity, sulfur odour	0.25	19.8	1,900.0	6.17	-120.8	85.0
MW040	11 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Light Yellow; Odour: Hydrogen Sulphide odour	-	-	8.5	-	-96.5	109.3
MW040	10 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, Weak Hydrogen Sulphide odour, No sheen	0.83	18.7	870.0	6.19	-13.9	191.9
MW040	03 May 2021	202105_AECOM_OMP	Clear, low turbidity, slight hydrogen sulfide odour	1.58	17.4	747.0	5.99	-27.4	178.4
MW040	23 Nov 2021	202211_AECOM_OMP	Grey, Low turbidity, Strong organic odour, No sheen	0.62	19.9	730.0	6.70	-100.9	104.9
MW040	02 Nov 2022	202211_AECOM_OMP	Light grey, low turbidity, sulfurous odour, no sheen.	1.56	18.3	954.0	6.18	-62.3	143.5
MW040	12 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.04	18.5	347.0	6.42	97.3	303.1
MW041	13 Nov 2019	201911_AECOM_OMP		0.12	20.4	4,350.3	6.05	-67.9	137.9
MW041	11 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Light Grey; Odour: No odour	-	-	2,753.0	-	-81.4	124.4
MW041	10 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.22	20.3	2,931.0	6.18	-12.5	193.3
MW041	03 May 2021	202105_AECOM_OMP	Cloudy, distinct hydrogen sulfide smell	1.64	19.8	3,369.0	6.14	24.5	230.3
MW041	23 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	1.26	22.5	2,922.0	5.90	75.6	281.4
MW041	25 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour, sediment on IP	4.23	18.8	862.0	6.20	82.2	288.0
MW041	02 Nov 2022	202211_AECOM_OMP	Ligh yellow, low turbidity, no odour, no sheen.	1.20	19.9	145.8	6.69	87.9	293.7
MW041	15 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.21	20.6	2,734.0	6.11	-81.4	124.4
MW042	13 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, slightly sulfur odour	0.12	20.7	2,868.4	6.05	-91.8	114.0
MW042	11 May 2020	202005_AECOM_OMP	Turbidity: Turbid; Sheen: No sheen; Colour: Brown; Odour: Hydrogen Sulphide odour	-	-	2,209.0	-	-85.1	120.7
MW042	10 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, Sediment in hydrasleeve, No odours or sheen noted	1.20	21.0	2,278.0	6.13	37.5	243.3
MW042	03 May 2021	202105_AECOM_OMP	Clear, low to medium turbidity, no odour	1.94	20.1	2,444.0	6.23	7.1	212.9
MW042	23 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	0.90	21.9	2,322.0	6.38	20.2	226.0
MW042	25 May 2022	202205_AECOM_OMP	Light brown, turbid, no sheen, no odour, water observed in gatic above TOC. Removed prior to opening. Sediment noted at bottom	1.04	21.9	2,219.0	6.38	76.2	282.0
MW042	02 Nov 2022	202211_AECOM_OMP	Light grey, low turbidity, no odour, no sheen.	0.89	19.6	1,926.0	6.18	88.7	294.5
MW042	12 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	2.37	20.3	279.3	6.26	106.4	312.2
MW043	13 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.10	20.2	2,213.6	6.61	-91.5	114.3
MW043	11 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Light Grey; Odour: Hydrogen Sulphide odour	-	-	1,825.0	-	-196.0	9.8
MW043	10 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.27	20.1	1,546.0	6.67	-93.1	112.7
MW043	03 May 2021	202105_AECOM_OMP	Clear, low turbidity, hydrogen sulfide odour, sediment in the bottom of hydrasleeve	4.19	19.5	1,756.0	6.67	-92.8	113.0
MW043	23 Nov 2021	202211_AECOM_OMP	Light Brown, Turbid, No odour, No sheen	1.71	22.7	1,693.0	6.57	-28.3	177.5
MW043	25 May 2022	202205_AECOM_OMP	Light brown, turbidity, no sheen, no odour, sediment on IP.water observed in gatic below TOC. Removed prior to opening	3.77	18.6	81.6	6.44	91.3	297.1
MW043	02 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen. Suspended solids present.	0.93	19.4	121.5	6.48	66.3	272.1
MW043	15 May 2023	202305_AECOM_OMP	Ligh yellow, low turbidity, no odour, no sheen.	0.97	19.8	163.2	6.27	-43.5	162.3
MW044	07 May 2021	202105_AECOM_OMP	Yellow-brown, low turbidity, no odour	1.07	20.1	1,486.0	6.56	47.4	253.2
MW045	13 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.12	21.2	1,990.6	6.46	-103.0	102.8
MW045	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	1.06	20.7	1,633.0	6.30	-100.6	105.2
MW045	10 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.55	21.6	1,717.0	6.54	-34.4	171.4
MW045	07 May 2021	202105_AECOM_OMP	Yellow-brown, low turbidity, no odour, hydrasleeve did not deploy, bailer grab sample taken	4.77	20.5	1,532.0	6.87	20.2	226.0
MW045	18 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.64	20.0	671.0	6.49	-12.2	193.6
MW045	09 May 2023	202305_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	0.89	20.2	1,627.0	6.33	63.8	269.6
MW046	13 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.13	21.9	2,411.3	6.18	74.1	279.9
MW046	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	0.07	21.1	1,561.0	6.19	-20.3	185.5
MW046	10 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.45	22.7	1,897.0	6.21	-19.2	186.6
MW046	04 May 2021	202105_AECOM_OMP	Yellow to brown, low turbidity, no odour	1.64	19.9	1,949.0	6.32	67.6	273.4
MW046	22 Nov 2021	202211_AECOM_OMP	Light Grey, Medium turbidity, No odour, No sheen	1.75	21.6	1,810.0	6.38	52.0	257.8
MW046	24 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	0.89	20.5	1,571.0	6.23	67.3	273.1
MW046	07 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.47	26.8	1,475.0	6.45	39.4	245.2
MW046	09 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.04	20.6	1,715.0	6.14	53.0	258.8
MW047	13 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.22	20.7	5,270.3	6.98	65.2	271.0
MW047	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	0.74	20.6	4,793.0	7.00	96.2	302.0
MW047	10 Nov 2020	202011_AECOM_OMP	Light Brown, Low Turbidity, No odours or sheen noted	2.70	20.6	4,922.0	7.02	57.7	263.5
MW047	03 May 2021	202105_AECOM_OMP	Brown, low to medium turbidity, no odour	2.38	19.7	5,098.0	6.93	46.7	252.5
MW047	23 Nov 2021	202211_AECOM_OMP	Clear, Clear turbidity, No odour, No sheen	4.80	20.9	4,696.0	7.61	104.3	310.1

Table T1 - Groundwater Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
MW047	25 May 2022	202205_AECOM_OMP	Clear, no turbidity, no sheen, no odour, sediment at bottom	2.45	20.5	358.0	6.91	116.8	322.6
MW047	02 Nov 2022	202211_AECOM_OMP	Light grey, no turbidity, no odour, no sheen.	5.99	20.3	536.0	7.48	85.0	290.8
MW047	15 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.01	20.1	3,241.0	6.96	31.9	237.7
MW048	13 Nov 2019	201911_AECOM_OMP	Pale brown, high turbidity, no odour	1.10	20.7	82.8	6.73	168.3	374.1
MW048	11 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	1.49	21.1	1,614.0	6.73	101.7	307.5
MW048	10 Nov 2020	202011_AECOM_OMP	Clear, Medium Turbidity, No odours or sheen noted	1.89	20.5	1,579.0	6.81	52.5	258.3
MW048	03 May 2021	202105_AECOM_OMP	Grey to brown, medium turbidity, no odour	3.23	19.5	2,442.0	7.00	13.9	219.7
MW048	23 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	1.41	21.3	1,689.0	6.87	108.0	313.8
MW048	25 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour	2.72	20.0	1,670.0	7.01	120.0	325.8
MW048	02 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.86	22.2	1,918.0	6.84	91.2	297.0
MW048	12 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	2.06	19.9	1,857.0	6.49	85.1	290.9
MW050	13 Nov 2019	201911_AECOM_OMP	Clear/pale brown, minor suspended solids, no odour, moderate-low turbidity.	0.21	18.4	333.6	7.26	-158.2	47.6
MW050	15 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Clear; Odour: Hydrogen Sulphide odour	0.81	16.3	334.6	6.68	-124.5	81.3
MW050	10 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, Weak Hydrogen Sulphide odour, No sheen	1.36	18.0	194.4	6.99	-72.8	133.0
MW050	03 May 2021	202105_AECOM_OMP	Grey, low turbidity, no odour	2.72	18.0	273.7	7.31	7.1	212.9
MW050	23 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, Weak organic odour, No sheen	1.11	18.9	145.8	7.02	-86.2	119.6
MW050	25 May 2022	202205_AECOM_OMP	Clear, no turbidity, no sheen, no odour	3.33	18.5	297.0	7.23	144.7	350.5
MW050	02 Nov 2022	202211_AECOM_OMP	Brown/orange, medium turbidity, organic odour, no sheen. Brown-orange algae suspended in water.	1.65	17.7	927.0	7.07	33.0	238.8
MW050	15 May 2023	202305_AECOM_OMP	Ligh yellow, no turbidity, no odour, no sheen.	0.82	18.7	249.4	6.93	-59.3	146.5
MW051	13 Nov 2019	201911_AECOM_OMP	Pale brown/orange, suspended organic substrates, high turbidity	0.22	19.4	1,080.0	6.98	-153.0	52.8
MW051	11 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	0.48	21.6	792.0	6.42	-24.4	181.4
MW051	10 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, Weak Organic Odour, No sheen noted, Dead bugs in hydrasleeve	1.22	19.2	567.0	6.65	-24.5	181.3
MW051	03 May 2021	202105_AECOM_OMP	Grey, low turbidity, hydrogen sulfide odour, organic suspended solids	2.31	19.6	1,387.0	6.82	-48.7	157.1
MW051	23 Nov 2021	202211_AECOM_OMP	Light Brown, Clear turbidity, No odour, No sheen	0.78	20.2	870.0	6.98	-85.0	120.8
MW051	25 May 2022	202205_AECOM_OMP	Brown, low turbidity, no sheen, no odour, well has no cap or monument lid	1.16	18.6	575.0	7.12	-70.8	135.0
MW051	02 Nov 2022	202211_AECOM_OMP	Light grey, no turbidity, no odour, no sheen.	1.22	18.4	984.0	7.02	-102.1	103.7
MW051	15 May 2023	202305_AECOM_OMP	Light grey, low turbidity, no odour, no sheen.	0.73	20.2	1,023.0	6.85	-67.6	138.2
MW052	13 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.16	20.3	5,602.1	7.31	-35.7	170.1
MW052	11 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	0.90	22.1	4,738.0	7.47	13.4	219.2
MW052	10 Nov 2020	202011_AECOM_OMP	Light Brown, Low Turbidity, Sediment in hydrasleeve , No odours or sheen noted	2.56	20.1	5,003.0	7.28	59.8	265.6
MW052	03 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	1.19	20.0	201.2	7.38	38.3	244.1
MW052	23 Nov 2021	202211_AECOM_OMP	Clear, Clear turbidity, No odour, No sheen	1.87	19.8	5,068.0	7.66	111.5	317.3
MW052	25 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour, well has no cap	1.17	20.5	491.4	7.76	84.1	289.9
MW052	02 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.64	18.8	577.0	6.82	105.1	310.9
MW052	15 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.18	20.7	1,238.0	7.27	13.7	219.5
MW053	14 Nov 2019	201911_AECOM_OMP	Brown, suspended organic solids, high turbidity, sulphor odour	0.21	20.4	9,522.7	6.20	-167.6	38.2
MW053	12 May 2020	202005_AECOM_OMP	Turbidity: Turbid; Sheen: No sheen; Colour: Grey; Odour: Hydrogen Sulphide odour, organic suspended solids	0.00	18.9	2,821.0	6.24	-171.8	34.0
MW053	11 Nov 2020	202011_AECOM_OMP	Grey, Turbid Turbidity, No odours or sheen noted	1.18	27.0	4,247.0	6.26	-53.3	152.5
MW053	03 May 2021	202105_AECOM_OMP	Grey, slight hydrogen sulfide odour, low t medium turbidity	2.00	20.3	2,909.0	6.68	-54.9	150.9
MW053	24 Nov 2021	202211_AECOM_OMP	Grey / Brown, Medium turbidity, Distinct rotten egg smell (sulfurous), No sheen	0.70	21.3	1,908.0	6.64	-87.6	118.2
MW053	26 May 2022	202205_AECOM_OMP	Light yellow, turbidity, no sheen, hydrogen sulphide odour, water observed in gatic below TOC. Removed prior to opening, faulty J cap	1.39	18.6	1,208.0	7.11	-11.8	194.0
MW053	10 Nov 2022	202211_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	4.19	20.6	411.2	7.10	24.3	230.1
MW053	09 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.34	19.7	1,580.0	6.45	-118.9	86.9
MW054	14 Nov 2019	201911_AECOM_OMP	Dark brown, high turbidity, no odour	0.61	20.3	2,606.1	6.88	4.2	210.0
MW054	11 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	2.02	21.2	1,926.0	6.75	18.7	224.5
MW054	04 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	1.99	18.6	2,404.0	6.85	71.5	277.3
MW054	24 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, Distinct rotten egg smell (sulfurous), No sheen	1.31	20.3	2,059.0	6.86	-77.8	128.0
MW054	24 May 2022	202205_AECOM_OMP	Light yellow, low turbidity, no sheen, no odour	0.56	20.2	2,090.0	6.53	120.8	326.6
MW054	10 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	2.00	22.2	1,564.0	6.74	84.7	290.5
MW054	09 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.49	18.7	1,833.0	6.65	81.6	287.4
MW056	14 Nov 2019	201911_AECOM_OMP	Pale brown, low - moderate turbidity, no odour	0.29	20.8	5,446.8	5.96	125.8	331.6
MW056	12 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Light Brown; Odour: No odour	1.98	17.7	3,354.0	5.92	151.7	357.5
MW056	13 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	2.30	21.1	3,098.0	6.05	94.5	300.3
MW056	07 May 2021	202105_AECOM_OMP	Brown, low turbidity, no odour	2.05	20.5	3,232.0	6.03	93.3	299.1
MW056	24 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	2.21	21.1	3,256.0	6.19	84.4	290.2
MW056	25 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	1.94	19.2	2,970.0	5.92	111.7	317.5
MW056	07 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.22	20.6	2,504.0	5.95	165.8	371.6
MW056	09 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.34	19.3	3,056.0	5.71	6.6	212.4
MW057	14 Nov 2019	201911_AECOM_OMP	Pale brown, moderate turbidity, no odour, minor suspended solids	1.10	20.2	1,029.0	7.04	203.5	409.3
MW057	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Light Brown; Odour: No odour	2.09	18.2	920.0	6.70	92.5	298.3
MW057	11 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	2.26	24.0	1,031.0	6.81	2.1	207.9
MW057	04 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	3.92	19.1	1,171.0	6.79	69.3	275.1
MW057	24 Nov 2021	202211_AECOM_OMP	Clear, Clear turbidity, No odour, No sheen	2.52	20.7	1,110.0	6.73	136.0	341.8
MW057	31 May 2022	202205_AECOM_OMP	Clear, no turbidity, no sheen, no odour, sediment on IP	4.23	18.7	988.0	6.83	191.1	396.9
MW057	10 Nov 2022	202211_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	2.14	22.3	896.0	6.57	93.3	299.1
MW057	09 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.02	17.6	1,040.0	6.49	109.4	315.2

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				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
MW058	14 Nov 2019	201911_AECOM_OMP	Brown, high turbidity, no odour	0.37	20.3	3,969.1	6.59	203.0	408.8
MW058	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	1.38	18.6	3,513.0	6.31	118.9	324.7
MW058	11 Nov 2020	202011_AECOM_OMP	Light Brown, Medium Turbidity, No odours or sheen noted	2.39	21.1	3,208.0	6.60	40.2	246.0
MW058	04 May 2021	202105_AECOM_OMP	Brown, low to medium turbidity, no odour	1.59	18.1	3,644.0	6.50	81.9	287.7
MW058	24 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	1.64	20.4	3,347.0	6.37	120.0	325.8
MW058	10 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.28	23.5	1,478.0	6.18	104.9	310.7
MW058	09 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.65	19.2	3,681.0	6.14	111.1	316.9
MW059	14 Nov 2019	201911_AECOM_OMP	High turbidity, orange/brown, no odour	0.22	20.7	6,703.5	5.92	141.3	347.1
MW059	15 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Light Brown; Odour: No odour	1.05	20.0	5,758.0	5.83	118.9	324.7
MW059	13 Nov 2020	202011_AECOM_OMP	Brown, Turbid Turbidity, No odours or sheen noted	1.77	21.0	5,021.0	6.01	99.2	305.0
MW059	07 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	1.00	20.7	5,804.0	6.05	99.8	305.6
MW059	29 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	2.60	21.6	5,239.0	5.99	89.3	295.1
MW059	31 May 2022	202205_AECOM_OMP	Light brown, medium turbidity, no sheen, no odour	3.64	18.6	5,323.0	5.99	214.7	420.5
MW059	07 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.17	20.9	4,330.0	6.14	157.2	363.0
MW059	09 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	2.50	19.3	5,031.0	5.91	77.5	283.3
MW060	14 Nov 2019	201911_AECOM_OMP	Moderate turbidity, pale brown/milky, no odour	0.25	20.8	3,111.7	6.23	58.9	264.7
MW060	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	0.00	19.8	2,419.0	6.02	3.8	209.6
MW060	11 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, sediment in hydrasleeve, No odours or sheen noted	1.78	22.0	2,326.0	6.23	52.7	258.5
MW060	04 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	2.16	18.8	2,574.0	6.37	98.2	304.0
MW060	24 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	2.41	23.2	575.0	5.60	195.2	401.0
MW060	25 May 2022	202205_AECOM_OMP	Clear, no turbidity, no sheen, no odour, sediment at bottom	2.36	19.5	1,465.0	6.46	159.7	365.5
MW060	07 Nov 2022	202211_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	3.71	23.2	379.6	6.68	136.2	342.0
MW060	09 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.58	20.4	3,081.0	5.97	31.8	237.6
MW061	14 Nov 2019	201911_AECOM_OMP	Pale brown/orange, mod-high turbidity, no odour	1.70	21.6	1,542.4	6.48	40.9	246.7
MW061	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	0.04	20.6	515.0	6.24	-141.2	64.6
MW061	11 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	0.63	23.1	716.0	6.47	-56.7	149.1
MW061	04 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	1.60	19.6	790.0	6.43	-10.6	195.2
MW061	24 Nov 2021	202211_AECOM_OMP	Clear, Low turbidity, No odour, No sheen	0.60	24.3	704.0	6.36	-41.6	164.2
MW061	25 May 2022	202205_AECOM_OMP	Clear, no turbidity, no sheen, no odour	1.03	19.6	637.0	6.38	25.2	231.0
MW061	07 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.18	23.6	567.0	6.28	-11.2	194.6
MW061	09 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	0.92	21.3	673.0	6.23	-24.3	181.5
MW062	14 Nov 2019	201911_AECOM_OMP	Pale brown, moderate turbidity, no odour	0.61	21.3	15,200.0	6.64	-4.8	201.0
MW062	12 May 2020	202005_AECOM_OMP	Turbidity: Turbid; Sheen: No sheen; Colour: Brown; Odour: No odour	1.00	20.6	12,934.0	6.62	-105.5	100.3
MW062	11 Nov 2020	202011_AECOM_OMP	Light Brown, Medium Turbidity, No odours or sheen noted	2.05	23.6	12,082.0	6.78	-33.3	172.5
MW062	04 May 2021	202105_AECOM_OMP	Brown to grey, turbid, no odour	1.32	19.6	14,742.0	6.60	57.8	263.6
MW062	22 Nov 2021	202211_AECOM_OMP	Light Brown, Turbid, No odour, No sheen	2.28	21.7	13,712.0	6.97	105.3	311.1
MW062	27 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour, sediment on IP	3.87	18.9	5,697.0	6.77	147.6	353.4
MW062	03 Nov 2022	202211_AECOM_OMP	Ligh yellow, low turbidity, no odour, no sheen.	5.51	21.9	7,084.0	6.90	68.7	274.5
MW062	09 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.26	18.7	9,627.0	6.65	84.4	290.2
MW063	14 Nov 2019	201911_AECOM_OMP	Pale yellow/brown, moderate turbidity, no odour	0.24	21.7	3,735.6	5.90	61.8	267.6
MW063	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	1.40	21.9	3,074.0	5.73	-73.9	131.9
MW063	11 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.31	27.7	3,182.0	5.95	-10.3	195.5
MW063	04 May 2021	202105_AECOM_OMP	Brown, high turbidity, no odour	1.64	20.4	3,059.0	5.86	92.8	298.6
MW063	22 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	0.90	24.5	720.0	5.94	117.5	323.3
MW063	27 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, oil like odour, water observed in gatic above TOC. Removed prior to opening. sediment at bottom	1.33	19.0	2,301.0	5.94	112.4	318.2
MW063	03 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.51	22.7	2,716.0	6.06	50.4	256.2
MW063	09 May 2023	202305_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	1.51	19.1	577.0	6.33	2.4	208.2
MW064	13 Nov 2019	201911_AECOM_OMP	Clear, low - moderate turbidity, no odour	0.29	21.5	1,559.6	6.44	138.9	344.7
MW064	11 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Grey / Brown; Odour: No odour	0.91	20.7	1,248.0	6.23	65.0	270.8
MW064	10 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.40	21.6	1,329.0	6.37	43.9	249.7
MW064	04 May 2021	202105_AECOM_OMP	Yellow to brown, low turbidity	2.06	19.3	1,413.0	6.50	19.3	225.1
MW064	22 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	0.80	21.5	1,152.0	6.63	-7.6	198.2
MW064	24 May 2022	202205_AECOM_OMP	Light yellow, low turbidity, no sheen, no odour	0.45	20.5	1,255.0	6.42	124.7	330.5
MW064	02 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, hydrocarbon odour, no sheen.	0.37	20.6	1,340.0	6.89	-151.6	54.2
MW064	09 May 2023	202305_AECOM_OMP	Light grey, low turbidity, no odour, no sheen.	0.88	20.5	1,159.0	6.39	-6.6	199.2
MW065	13 Nov 2019	201911_AECOM_OMP	Brown, high turbidity, minor suspended solids, no odour.	0.12	22.3	1,247.0	6.41	-6.7	199.1
MW065	11 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Light Brown; Odour: No odour	1.14	21.7	994.0	6.09	73.8	279.6
MW065	10 Nov 2020	202011_AECOM_OMP	Brown, Turbid Turbidity, No odours or sheen noted	1.31	22.9	1,085.0	6.28	41.5	247.3
MW065	04 May 2021	202105_AECOM_OMP	Orange, low turbidity, no odour	8.43	19.4	1,190.0	6.93	50.6	256.4
MW065	22 Nov 2021	202211_AECOM_OMP	Grey, Medium turbidity, Weak HC odour, No sheen	1.02	21.7	1,058.0	6.56	-59.9	145.9
MW065	24 May 2022	202205_AECOM_OMP	Light yellow, low turbidity, no sheen, no odour, sediment on IP	0.85	19.8	890.0	6.29	37.4	243.2
MW065	02 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen. Silt at base of hydrasleeve.	0.67	20.1	787.0	6.58	-104.1	101.7
MW065	09 May 2023	202305_AECOM_OMP	Light grey, low turbidity, no odour, no sheen.	1.40	21.6	809.0	6.42	-58.2	147.6
MW066	13 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.06	21.5	1,391.3	6.44	-51.9	153.9
MW066	11 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Grey / Brown; Odour: No odour	1.40	21.1	1,130.0	6.27	13.7	219.5
MW066	10 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No sediment in hydrasleeve , No odours or sheen noted	1.53	22.2	1,180.0	6.37	-4.3	201.5
MW066	04 May 2021	202105_AECOM_OMP	Yellow to brown, low turbidity	2.49	19.4	1,177.0	6.74	50.4	256.2

Table T1 - Groundwater Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
MW066	22 Nov 2021	202211_AECOM_OMP	Light Grey, Low turbidity, No odour, No sheen	1.25	22.4	1,166.0	6.53	21.6	227.4
MW066	24 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, organic odour, puddle over well, water observed in gatic above TOC. Removed prior to opening	0.98	20.3	1,064.0	6.28	11.7	217.5
MW066	02 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen. Silt at base of hydrasleeve.	1.03	20.2	1,190.0	6.55	43.7	249.5
MW066	09 May 2023	202305_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	1.23	19.9	227.4	6.49	71.6	277.4
MW067	14 Nov 2019	201911_AECOM_OMP	Clear-pale brown, low-moderate turbidity, no odour	0.28	21.3	7,311.1	6.71	67.9	273.7
MW067	15 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	0.99	19.6	6,231.0	6.63	118.1	323.9
MW067	11 Nov 2020	202011_AECOM_OMP	Light Brown, Medium Turbidity, No odours or sheen noted	1.10	22.1	5,586.0	6.69	16.3	222.1
MW067	05 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	1.57	20.2	6,593.0	6.52	107.4	313.2
MW067	22 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	0.69	21.1	6,411.0	6.97	92.7	298.5
MW067	26 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour, sediment on IP	1.15	21.0	6,233.0	6.78	180.2	386.0
MW067	03 Nov 2022	202211_AECOM_OMP	Light brown, medium turbidity, no odour, no sheen.	2.52	22.1	6,582.0	6.84	127.6	333.4
MW067	09 May 2023	202305_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	0.76	17.7	6,147.0	6.61	127.2	333.0
MW068	14 Nov 2019	201911_AECOM_OMP	Pale brown, moderate turbidity, no odour	0.27	21.7	1,676.1	5.89	180.1	385.9
MW068	12 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Clear; Odour: No odour	0.72	20.6	1,539.0	5.84	-23.5	182.3
MW068	11 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.41	22.8	1,150.0	5.94	72.1	277.9
MW068	04 May 2021	202105_AECOM_OMP	Clear, no odour, low to medium turbidity	2.77	19.7	1,472.0	6.37	55.2	261.0
MW068	23 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	3.10	20.6	792.0	6.25	38.4	244.2
MW068	26 May 2022	202205_AECOM_OMP	Light brown, medium turbidity, no sheen, no odour	1.29	20.5	785.0	6.17	127.9	333.7
MW068	03 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	0.80	21.4	748.0	5.88	128.1	333.9
MW068	09 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	0.32	14.3	2,169.0	6.46	54.2	260.0
MW069	14 Nov 2019	201911_AECOM_OMP	Pale brown/organge, low turbidity, no odour	0.29	21.6	396.9	6.36	209.7	415.5
MW069	15 May 2020	202005_AECOM_OMP	Turbidity: Turbid; Sheen: No sheen; Colour: Brown; Odour: No odour	1.22	18.5	336.8	6.50	211.6	417.4
MW069	11 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, Sediment in hydrasleeve , No odours or sheen noted	1.35	23.0	389.5	6.42	39.5	245.3
MW069	05 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	1.32	20.4	543.3	6.67	38.1	243.9
MW069	23 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	1.42	20.2	325.5	6.12	184.0	389.8
MW069	27 May 2022	202205_AECOM_OMP	Light brown, medium turbidity, no sheen, no odour	1.40	17.9	366.6	6.25	139.4	345.2
MW069	03 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.65	21.3	389.9	7.04	99.6	305.4
MW069	11 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.24	16.6	570.0	5.93	127.9	333.7
MW070	15 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Light Brown; Odour: No odour	2.49	20.4	460.2	5.83	148.3	354.1
MW070	13 Nov 2020	202011_AECOM_OMP	Light Brown, Low Turbidity, No odours or sheen noted	3.62	22.0	193.6	7.48	100.8	306.6
MW070	04 May 2021	202105_AECOM_OMP	Brown, high turbidity, no odour	4.20	20.6	195.6	6.45	60.0	265.8
MW070	22 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	3.20	21.2	247.5	5.85	197.9	403.7
MW070	26 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	4.22	20.1	166.0	6.32	58.4	264.2
MW070	03 Nov 2022	202211_AECOM_OMP	Ligh yellow, low turbidity, no odour, no sheen.	5.30	19.1	124.1	6.13	144.1	349.9
MW070	09 May 2023	202305_AECOM_OMP	Ligh yellow, low turbidity, no odour, no sheen.	0.76	18.2	215.2	5.84	82.0	287.8
MW071	14 Nov 2019	201911_AECOM_OMP	Orange/brown, moderate turbidity, no odour	4.92	21.0	137.9	6.25	252.7	458.5
MW071	15 May 2020	202005_AECOM_OMP	Turbidity: Turbid; Sheen: No sheen; Colour: Brown; Odour: No odour	4.69	21.1	137.2	6.09	120.2	326.0
MW071	13 Nov 2020	202011_AECOM_OMP	Light Brown, Low Turbidity, No odours or sheen noted	6.42	21.5	102.2	7.20	83.1	288.9
MW071	04 May 2021	202105_AECOM_OMP	Brown, high turbidity, no odour	5.71	21.0	126.9	6.30	79.9	285.7
MW071	22 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	4.70	21.3	203.0	6.66	146.7	352.5
MW071	26 May 2022	202205_AECOM_OMP	Light brown, medium turbidity, no sheen, no odour	5.55	21.0	89.7	6.49	81.8	287.6
MW071	03 Nov 2022	202211_AECOM_OMP	Light brown, medium turbidity, no odour, no sheen.	6.70	20.1	93.9	6.35	150.6	356.4
MW071	09 May 2023	202305_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	4.31	18.4	100.7	6.17	122.3	328.1
MW072	13 Nov 2019	201911_AECOM_OMP	Pale brown, low turbidity, no odour	0.18	21.7	285.9	5.90	-67.5	138.3
MW072	11 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Grey / Brown; Odour: No odour	0.99	21.9	233.7	5.74	109.4	315.2
MW072	11 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.37	22.6	214.6	5.62	86.8	292.6
MW072	05 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	2.43	19.3	168.0	5.95	53.8	259.6
MW072	24 Nov 2021	202211_AECOM_OMP	Clear, Low turbidity, No odour, No sheen	2.03	24.7	272.5	5.90	91.1	296.9
MW072	24 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, organic odour, No J cap	1.60	20.6	213.4	6.17	5.3	211.1
MW072	10 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.01	21.6	217.4	6.10	85.8	291.6
MW072	15 May 2023	202305_AECOM_OMP	Light grey, low turbidity, no odour, no sheen.	1.63	20.8	308.4	5.99	25.5	231.3
MW073	28 Nov 2019	201911_AECOM_OMP	Brown, slightly turbid, mild organic odour	0.07	20.9	666.0	6.62	149.2	355.0
MW073	12 May 2020	202005_AECOM_OMP	Turbidity: Medium; Colour: Grey / Brown; Odour: No odour	0.05	21.0	673.0	6.54	-53.0	152.8
MW073	11 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, Slight Hydrogen Sulphide odour, No sheen noted	1.55	20.3	891.0	6.58	-84.5	121.3
MW073	05 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	1.13	19.5	1,450.0	6.63	-49.4	156.4
MW073	24 Nov 2021	202211_AECOM_OMP	Light Brown, Turbid, No odour, No sheen	0.81	24.2	749.0	6.55	-78.6	127.2
MW073	24 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	1.29	21.0	634.0	6.47	170.5	376.3
MW073	10 Nov 2022	202211_AECOM_OMP	Clear, low turbidity, no odour, no sheen. Orange suspended solids.	1.66	20.6	512.0	6.51	59.3	265.1
MW073	15 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.40	21.2	676.0	6.51	-9.7	196.1
MW074	12 May 2020	202005_AECOM_OMP	Turbidity: Low; Colour: Clear; Odour: No odour, organic suspended solids	1.01	21.1	1,161.0	6.49	-99.4	106.4
MW074	11 Nov 2020	202011_AECOM_OMP	Pale Brown, Medium Turbidity, Slight Hydrogen Sulphide odour, No sheen noted	1.77	21.0	550.0	6.58	-60.6	145.2
MW074	05 May 2021	202105_AECOM_OMP	Brown, medium turbidity, no odour, hydrasleeve failed, bailer grab sample taken	2.32	19.4	749.0	6.42	70.2	276.0
MW074	24 Nov 2021	202211_AECOM_OMP	Clear, Low turbidity, No odour, No sheen	0.62	24.0	1,099.0	6.64	-12.3	193.5
MW074	24 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour	1.39	19.0	948.0	6.62	1.6	207.4
MW074	10 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.64	20.1	818.0	6.61	79.9	285.7
MW074	15 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	0.86	20.1	1,517.0	6.56	22.5	228.3
MW075	15 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.09	20.8	846.5	6.16	41.2	247.0

Table T1 - Groundwater Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
MW075	15 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Light Brown; Odour: No odour	1.09	19.2	472.9	5.75	67.7	273.5
MW075	10 Nov 2020	202011_AECOM_OMP	Brown, Medium Turbidity, No odours or sheen noted	1.11	22.5	543.0	6.08	25.0	230.8
MW075	04 May 2021	202105_AECOM_OMP	Brown, high turbidity, no odour	1.87	18.5	542.3	5.99	84.1	289.9
MW075	25 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	0.90	21.7	468.0	6.08	162.3	368.1
MW075	30 May 2022	202205_AECOM_OMP	Light brown, medium turbidity, no sheen, no odour, sediment at bottom	1.20	17.8	514.0	6.28	100.7	306.5
MW075	08 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.50	25.1	406.4	5.99	138.1	343.9
MW075	08 May 2023	202305_AECOM_OMP	Light brown, medium turbidity, no odour, no sheen.	1.22	20.2	493.6	6.09	-15.7	190.1
MW076	15 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.15	20.3	581.5	6.34	48.0	253.8
MW076	15 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	1.44	19.1	464.8	5.96	46.3	252.1
MW076	09 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, Sediment in hydrasleeve, No odours or sheen noted	2.13	20.2	431.1	5.94	54.3	260.1
MW076	03 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour, sediment in hydrasleeve	3.40	19.9	399.5	6.29	22.7	228.5
MW076	25 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	0.78	20.9	405.6	5.89	62.8	268.6
MW076	31 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour, sediment on IP	0.97	18.3	335.7	6.40	186.0	391.8
MW076	10 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.80	20.8	334.7	6.06	103.9	309.7
MW076	10 May 2023	202305_AECOM_OMP	Ligh yellow, low turbidity, no odour, no sheen.	1.88	19.5	396.5	5.92	83.5	289.3
MW077	15 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.06	20.8	8,428.9	6.18	43.1	248.9
MW077	15 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Light Brown; Odour: No odour	1.29	19.3	793.0	6.01	31.5	237.3
MW077	09 Nov 2020	202011_AECOM_OMP	Light Brown, Low Turbidity, Slight Organic Odour, No sheen	0.89	20.4	775.0	5.83	-12.4	193.4
MW077	03 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	1.84	20.5	861.0	6.05	39.1	244.9
MW077	25 Nov 2021	202211_AECOM_OMP	Clear, Clear turbidity, No odour, No sheen	1.90	21.1	709.0	6.17	37.8	243.6
MW077	31 May 2022	202205_AECOM_OMP	Light yellow, low turbidity, no sheen, no odour	0.96	18.2	611.0	6.05	196.1	401.9
MW077	10 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.09	21.1	511.0	5.89	75.8	281.6
MW077	10 May 2023	202305_AECOM_OMP	Ligh yellow, no turbidity, no odour, no sheen.	0.84	19.6	564.0	6.15	89.8	295.6
MW078	15 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.06	21.5	2,429.8	6.67	-91.9	113.9
MW078	13 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Grey / Brown; Odour: Hydrogen Sulphide odour	0.43	19.5	1,570.0	6.33	-182.4	23.4
MW078	09 Nov 2020	202011_AECOM_OMP	Clear, Medium Turbidity, Weak Hydrogen Sulphide odour, No sheen	1.49	20.9	1,505.0	6.27	-42.8	163.0
MW078	03 May 2021	202105_AECOM_OMP	Clear, low to medium turbidity, no odour	2.08	21.6	1,617.0	6.47	-18.3	187.5
MW078	25 Nov 2021	202211_AECOM_OMP	Light Brown, Clear turbidity, No odour, No sheen	1.25	22.0	811.0	6.70	-20.4	185.4
MW078	31 May 2022	202205_AECOM_OMP	Light brown, no turbidity, no sheen, no odour	2.48	20.1	563.0	7.29	172.2	378.0
MW078	08 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.14	27.3	777.0	6.98	72.8	278.6
MW078	11 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.04	16.9	1,789.0	6.37	28.1	233.9
MW079	15 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.09	20.7	2,020.9	6.25	-3.5	202.3
MW079	13 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Grey / Brown; Odour: No odour	0.62	19.2	1,743.0	6.04	-120.6	85.2
MW079	09 Nov 2020	202011_AECOM_OMP	Brown, Turbid Turbidity, No odours or sheen noted	1.42	20.0	1,731.0	6.00	-25.8	180.0
MW079	03 May 2021	202105_AECOM_OMP	Clear, low to medium turbidity, no odour, sediment in hydrasleeve	1.86	20.8	1,907.0	6.34	-29.3	176.5
MW079	24 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	0.70	22.9	1,836.0	6.23	14.5	220.3
MW079	31 May 2022	202205_AECOM_OMP	Light brown, medium turbidity, no sheen, no odour, sediment on IP	2.05	18.1	1,617.0	6.38	181.9	387.7
MW079	08 Nov 2022	202211_AECOM_OMP	Clear, low turbidity, no odour, no sheen. Suspended solids.	4.16	20.3	1,333.0	6.17	63.4	269.2
MW079	10 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.67	18.8	1,406.0	5.95	118.3	324.1
MW080	15 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.07	21.2	1,486.4	6.06	101.9	307.7
MW080	13 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Light Brown; Odour: No odour	0.09	18.9	1,112.0	5.99	-105.4	100.4
MW080	09 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.25	20.5	1,205.0	6.01	-52.3	153.5
MW080	03 May 2021	202105_AECOM_OMP	Grey, low turbidity, hydrogen sulfide odour, black suspended solids	2.14	21.2	1,832.0	6.20	81.7	287.5
MW080	24 Nov 2021	202211_AECOM_OMP	Clear, Clear turbidity, No odour, No sheen	0.70	23.4	1,304.0	6.26	24.2	230.0
MW080	08 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.01	22.3	653.0	5.88	58.3	264.1
MW080	08 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	0.76	19.3	898.0	6.12	20.4	226.2
MW081	15 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, no odour	0.12	19.3	1,675.8	7.14	-60.6	145.2
MW081	15 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Brown; Odour: No odour	0.58	18.6	805.0	6.23	147.5	353.3
MW081	13 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.11	20.1	1,003.0	6.76	106.8	312.6
MW081	05 May 2021	202105_AECOM_OMP	Light brown, low turbidity, no odour	7.86	18.9	-	7.13	92.4	298.2
MW081	29 Nov 2021	202211_AECOM_OMP	Light Grey, Medium turbidity, No odour, No sheen	1.14	18.4	1,248.0	6.64	-21.2	184.6
MW081	30 May 2022	202205_AECOM_OMP	Light brown, medium turbidity, no sheen, no odour, sediment at bottom	1.37	16.9	1,028.0	6.80	86.0	291.8
MW081	03 Nov 2022	202211_AECOM_OMP	Light brown, medium turbidity, no odour, no sheen. Brown-orange algae suspended in water.	1.19	23.5	1,466.0	6.60	235.5	441.3
MW081	09 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.57	18.5	598.0	6.48	15.8	221.6
MW082	15 Nov 2019	201911_AECOM_OMP	Brown, High turbidity, no odour	0.85	19.9	1,326.6	6.88	205.0	410.8
MW082	15 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Brown; Odour: No odour	1.88	19.0	1,105.0	6.14	127.0	332.8
MW082	09 Nov 2020	202011_AECOM_OMP	Orange-brown tinge, Medium Turbidity, No odours or sheen noted	2.14	20.4	1,160.0	6.39	87.8	293.6
MW082	04 May 2021	202105_AECOM_OMP	Brown, turbid, no odour	1.72	19.4	1,480.0	6.53	95.0	300.8
MW082	25 Nov 2021	202211_AECOM_OMP	Light Brown, Medium turbidity, No odour, No sheen	1.12	22.5	1,395.0	6.78	24.4	230.2
MW082	30 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour	1.84	18.6	1,188.0	6.74	103.6	309.4
MW082	18 Nov 2022	202211_AECOM_OMP	Light brown, medium turbidity, no odour, no sheen.	1.87	22.8	1,013.0	6.59	9.9	215.7
MW082	09 May 2023	202305_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	1.64	19.1	1,143.0	6.51	-34.5	171.3
MW086	15 Nov 2019	201911_AECOM_OMP	Pale brown, low turbidity, no odour	2.56	21.3	4,421.8	7.07	168.6	374.4
MW086	13 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Light Brown; Odour: No odour	0.92	20.1	3,561.0	6.81	-66.7	139.1
MW086	09 Nov 2020	202011_AECOM_OMP	Orange-brown tinge, Medium Turbidity, No odours or sheen noted	3.98	21.1	3,870.0	6.65	79.1	284.9
MW086	03 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	2.91	22.1	6,121.0	7.10	60.3	266.1
MW086	22 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	4.00	20.3	544.0	6.79	154.0	359.8

Table T1 - Groundwater Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
MW091	11 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	1.38	21.5	313.5	5.83	86.1	291.9
MW091	09 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	1.97	19.5	239.7	5.66	70.5	276.3
MW091	03 May 2021	202105_AECOM_OMP	Clear, low turbidity, no odour	3.60	22.0	418.9	6.69	21.6	227.4
MW091	25 Nov 2021	202211_AECOM_OMP	Clear, Low turbidity, No odour, No sheen	1.82	22.4	215.1	6.05	164.2	370.0
MW091	31 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, acidic odour	2.54	18.8	210.3	6.11	118.4	324.2
MW091	07 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.02	20.8	163.9	5.68	118.6	324.4
MW091	10 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.29	19.3	187.9	5.89	113.1	318.9
MW092	11 Nov 2019	201911_AECOM_OMP	Dark grey, moderate - high turbidity, no odour	0.02	19.7	2,659.4	6.10	-241.2	-35.4
MW092	13 May 2020	202005_AECOM_OMP	Turbidity: Turbid; Sheen: No sheen; Colour: Grey; Odour: Hydrogen Sulphide odour	0.71	18.3	1,924.0	5.88	-98.5	107.3
MW092	13 Nov 2020	202011_AECOM_OMP	Grey, Turbid Turbidity, No odours or sheen noted	1.17	20.9	1,661.0	5.94	-6.5	199.3
MW092	06 May 2021	202105_AECOM_OMP	Grey, low to medium turbidity, no odour	0.79	19.9	1,998.0	5.97	-1.0	204.8
MW092	25 Nov 2021	202211_AECOM_OMP	Light Grey, Low turbidity, No odour, No sheen	0.35	22.6	1,873.0	6.20	-53.0	152.8
MW092	31 May 2022	202205_AECOM_OMP	Light grey, low turbidity, no sheen, no odour, sediment at bottom	0.93	17.8	1,601.0	6.07	50.2	256.0
MW092	07 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	0.79	23.6	1,196.0	5.91	-16.3	189.5
MW092	10 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.56	19.2	1,183.0	5.76	5.8	211.6
MW095	08 Nov 2019	201911_AECOM_OMP	Pale brown, high turbidity, no odour	0.47	19.9	2,619.4	6.87	105.5	311.3
MW095	14 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Clear; Odour: No odour	0.64	19.5	4,189.0	6.83	8.9	214.7
MW095	12 Nov 2020	202011_AECOM_OMP	Pale brown, High Turbidity, No odours or sheen noted	2.42	21.1	4,139.0	7.15	112.0	317.8
MW095	06 May 2021	202105_AECOM_OMP	Brown, medium turbidity, no odour	2.13	19.6	5,064.0	6.86	99.2	305.0
MW095	29 Nov 2021	202211_AECOM_OMP	Orange / Brown, Medium turbidity, No odour, No sheen	1.37	19.3	4,470.0	6.72	27.8	233.6
MW097	14 Nov 2019	201911_AECOM_OMP	Pale brown/orange	0.18	20.6	858.1	6.44	160.2	366.0
MW097	14 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Light Brown; Odour: No odour	0.85	18.3	729.0	6.02	49.0	254.8
MW097	13 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, Sediment in hydrasleeve , No odours or sheen noted	0.94	20.1	687.0	6.02	131.2	337.0
MW097	05 May 2021	202105_AECOM_OMP	Brown, medium to high turbidity, no odour	2.13	18.4	759.0	6.39	104.3	310.1
MW097	29 Nov 2021	202211_AECOM_OMP	Brown, Medium turbidity, No odour, No sheen, gatic damaged	3.25	18.7	167.1	6.94	58.9	264.7
MW097	31 May 2022	202205_AECOM_OMP	Brown, turbid, No sheen, no odour, water observed in gatic above TOC. Removed prior to opening	0.99	17.7	176.0	6.80	52.9	258.7
MW098	14 Nov 2019	201911_AECOM_OMP	Brown, high turbidity, no odour	0.07	19.4	2,985.3	6.67	-6.2	199.6
MW098	14 May 2020	202005_AECOM_OMP	Turbidity: Medium; Sheen: No sheen; Colour: Brown; Odour: No odour	0.95	17.5	2,408.0	6.43	-73.0	132.8
MW098	12 Nov 2020	202011_AECOM_OMP	Brown, High Turbidity, No odours or sheen noted	1.16	21.8	2,494.0	6.58	-0.7	205.1
MW098	05 May 2021	202105_AECOM_OMP	Light brown, medium turbidity, no odour	2.03	18.9	3,175.0	6.48	36.4	242.2
MW098	29 Nov 2021	202211_AECOM_OMP	Brown, Medium turbidity, No odour, No sheen, gatic damaged	0.64	18.3	2,476.0	6.33	-28.0	177.8
MW098	30 May 2022	202205_AECOM_OMP	Light grey, low turbidity, no sheen, septic odour, J cap not secured properly	0.85	17.7	2,021.0	6.72	41.0	246.8
MW099	14 Nov 2019	201911_AECOM_OMP	Clear/pale brown, low turbidity, no odour	0.14	20.0	2,972.5	6.38	161.3	367.1
MW099	14 May 2020	202005_AECOM_OMP	Turbidity: Low; Sheen: No sheen; Colour: Clear; Odour: No odour	1.06	17.5	2,256.0	5.92	38.0	243.8
MW099	12 Nov 2020	202011_AECOM_OMP	Pale Brown, High Turbidity, No odours or sheen noted	1.25	21.7	2,192.0	6.15	78.2	284.0
MW106	24 Nov 2021	202211_AECOM_OMP	Clear, Clear turbidity, No odour, No sheen	0.57	23.8	1,659.0	6.77	-68.5	137.3
MW106	31 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	2.01	18.5	210.7	6.03	150.1	355.9
MW106	08 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.73	20.7	1,121.0	5.90	22.6	228.4
MW106	08 May 2023	202305_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	0.89	19.1	1,347.0	5.91	-30.1	175.7
MW107D	23 Nov 2021	202111_AECOM_OMP	Pale Red, Clear turbidity, No odour, No sheen	1.86	22.0	1,248.0	7.07	-87.4	118.4
MW107D	24 May 2022	202205_AECOM_OMP	Clear, no turbidity, no sheen, no odour, brown sediment noted at bottom	0.88	19.3	1,333.0	6.07	62.4	268.2
MW107D	10 Nov 2022	202211_AECOM_OMP	Clear, no odour, low turbidity, no sheen	1.84	22.5	1,269.0	5.95	15.9	221.7
MW107D	10 Nov 2022	202211_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.84	22.5	1,269.0	5.95	15.9	221.7
MW107D	08 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	0.81	17.7	2,394.0	5.87	-86.1	119.7
MW107I	23 Nov 2021	202111_AECOM_OMP	Clear, Clear turbidity, No odour, No sheen	0.73	21.6	1,802.0	6.26	124.8	330.6
MW107I	24 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	1.40	20.2	705.0	6.17	108.0	313.8
MW107I	10 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	3.90	21.7	246.3	6.01	79.0	284.8
MW107I	09 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	0.90	19.7	540.0	6.05	49.9	255.7
MW108	23 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen	1.00	21.9	765.0	7.06	-46.1	159.7
MW108	26 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, organic odour	0.61	18.0	2,580.0	6.17	103.4	309.2
MW108	11 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.10	20.1	2,389.0	6.39	-20.8	185.0
MW108	08 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	0.82	19.3	2,573.0	5.99	-88.5	117.3
MW109	27 May 2022	202205_AECOM_OMP	Brown, turbid, no sheen, no odour	1.39	17.8	4,636.0	6.72	113.3	319.1
MW109	08 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.62	20.8	3,581.0	6.48	10.7	216.5
MW109	08 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	0.83	17.6	3,847.0	6.53	-108.2	97.6
MW110	22 Nov 2021	202211_AECOM_OMP	Grey / Brown, Medium turbidity, No odour, No sheen	1.63	19.5	3,253.0	6.62	42.4	248.2
MW110	27 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour	0.92	18.6	3,269.0	6.49	120.2	326.0
MW110	08 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	3.35	19.7	2,371.0	7.02	29.0	234.8
MW110	08 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.34	19.4	3,223.0	6.54	-31.0	174.8
MW111	25 Nov 2021	202211_AECOM_OMP	Dark Grey, Turbid, Distinct rotten egg smell (sulfurous), No sheen	0.30	20.1	9,062.0	6.90	-105.2	100.6
MW111	26 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	1.60	18.3	8,922.0	6.25	125.0	330.8
MW111	11 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.18	20.1	3,385.0	6.53	65.9	271.7
MW111	11 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.29	17.1	3,288.0	6.49	48.9	254.7
MW112	25 Nov 2021	202211_AECOM_OMP	Light Grey, Medium turbidity, No odour, No sheen	0.91	19.4	3,211.0	6.66	-40.9	164.9
MW112	26 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	1.18	18.9	3,144.0	6.41	49.3	255.1
MW112	11 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	10.77	19.3	2,276.0	6.21	18.2	224.0
MW112	11 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	0.58	17.7	2,777.0	6.11	23.4	229.2

Table T1 - Groundwater Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
MW113	29 Nov 2021	202211_AECOM_OMP	Dark Grey, Low turbidity, No odour	5.01	20.5	3,503.0	7.19	-19.8	186.0
MW113	26 May 2022	202205_AECOM_OMP	Clear, low turbidity, no sheen, no odour	1.70	19.1	3,380.0	7.09	-3.0	202.8
MW113	11 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	3.74	22.1	2,905.0	7.21	0.2	206.0
MW113	11 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.67	18.3	3,337.0	7.20	44.5	250.3
MW114	29 Nov 2021	202211_AECOM_OMP	Light Grey, Low turbidity, Distinct rotten egg smell (sulfurous), No sheen	0.95	19.8	1,739.0	6.52	-108.3	97.5
MW114	26 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no sheen, no odour	0.50	19.8	1,416.0	7.30	-17.3	188.5
MW114	11 Nov 2022	202211_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	1.54	26.9	1,673.0	6.49	59.9	265.7
MW114	11 May 2023	202305_AECOM_OMP	Light yellow, low turbidity, no odour, no sheen.	0.89	18.9	2,105.0	6.87	-116.5	89.3
MW117	25 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen. Well cap missing	2.42	21.6	307.6	6.78	87.3	293.1
MW118	25 Nov 2021	202211_AECOM_OMP	Light Brown, Low turbidity, No odour, No sheen. Well cap missing	0.51	21.4	2,627.0	6.56	-48.7	157.1
MW119	25 Nov 2021	202211_AECOM_OMP	Brown, Medium turbidity, No odour, No sheen. Well cap missing	0.56	21.3	312.0	6.27	116.1	321.9
MW120	04 May 2021	202105_AECOM_OMP	Turbid, black suspended solids, bailer grab sample	2.20	16.9	1,098.0	8.45	57.3	263.1
MW120	14 Dec 2021	202211_AECOM_OMP	Dark Brown, Medium turbidity, No odour, No sheen	0.56	22.4	1,060.0	6.10	71.6	277.4
MW121	04 May 2021	202105_AECOM_OMP	Dark grey to brown, medium turbidity, no odour, bailer grab sample	1.94	18.1	509.4	7.77	29.5	235.3
MW121	14 Dec 2021	202211_AECOM_OMP	Dark Brown, Medium turbidity, Weak Hydrogen Sulphide odour, No sheen	0.16	20.9	505.0	6.84	-147.0	58.8
MW143	10 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	1.60	20.4	626.0	6.39	116.6	322.4
MW143	09 Jun 2023	202305_AECOM_OMP	Light brown, medium turbidity, no odour, no sheen.	0.04	19.0	649.0	6.48	276.9	482.7
MW144	10 May 2023	202305_AECOM_OMP	Light grey, low turbidity, no odour, no sheen.	0.98	18.5	3,016.0	6.75	20.3	226.1
MW144	09 Jun 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	0.31	18.8	4,615.0	6.89	222.8	428.6

Notes

mV	milliVolts
mg/L	milligrams per Litre
°C	degrees Celsius
µS/cm	microSiemens per centimetre

Corrected field Redox measurement Eh = Er + 205.8

Table T2 - Surface Water Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
SW001	13 Nov 2020	202011_AECOM_OMP	Pale Yellow, Low Turbidity, Tadpoles and aquatic vegetation, No odours or sheen noted	2.76	30.3	156.6	6.41	111.7	317.5
SW001	07 May 2021	202105_AECOM_OMP	Brown, low turbidity, no odour, foam of unknown origin observed	2.30	19.9	181.2	6.48	29.5	235.3
SW001	01 Dec 2021	202205_AECOM_OMP	Yellowish Brown, No odour, Low turbidity, No sheen	6.61	22.1	59.3	6.76	168.1	373.9
SW001	24 May 2022	202205_AECOM_OMP	Pale Yellow, no turbidity, no odour, no sheen	4.27	21.7	203.0	7.02	86.5	292.3
SW001	08 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	7.39	17.6	80.3	6.15	-10.8	195.0
SW002	14 May 2020	202005_AECOM_OMP	Clear in colour, low turbidity, no odour, leaf litter on the surface.	0.47	12.7	208.5	7.04	-28.1	177.7
SW002	13 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, Trace foam, No odours or sheen noted	4.44	20.4	145.3	6.85	89.4	295.2
SW002	05 May 2021	202105_AECOM_OMP	Yellow to green, low turbidity, no odour, foam of unknown origin observed	3.89	17.6	148.8	5.75	210.9	416.7
SW002	29 Nov 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Low turbidity, No sheen	5.77	18.6	142.6	7.09	28.1	233.9
SW002	27 May 2022	202205_AECOM_OMP	Pale Yellow, no turbidity, no odour, no sheen	5.04	16.7	233.2	7.35	105.8	311.6
SW002	08 Nov 2022	202211_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	2.27	18.7	568.0	7.07	95.3	301.1
SW002	08 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	3.58	15.9	137.3	6.55	49.3	255.1
SW003	11 Nov 2019	201911_AECOM_OMP	Suspended solids, pale brown, low turbidity, no odour	0.61	18.2	239.2	6.58	10.7	216.5
SW003	14 May 2020	202005_AECOM_OMP	Clear in colour, low turbidity - trace suspended organic solids, no odour, dead vegetation.	2.00	11.5	79.9	6.42	24.3	230.1
SW003	13 Nov 2020	202011_AECOM_OMP	Pale Yellow, Low Turbidity, Aquatic vegetation , No odours or sheen noted	0.49	19.9	153.2	6.40	26.5	232.3
SW003	05 May 2021	202105_AECOM_OMP	Brown, high turbidity, no odour, suspended organic solids	2.32	16.0	165.4	6.01	153.8	359.6
SW003	29 Nov 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Low turbidity, No sheen	1.05	18.9	137.7	6.55	-43.7	162.1
SW003	30 May 2022	202205_AECOM_OMP	Light olive brown, medium turbidity, no odour, biosheen appearance	1.67	14.4	335.0	6.96	127.9	333.7
SW003	08 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, biosheen.	2.11	20.4	196.7	6.47	-9.2	196.6
SW003	08 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	3.55	13.1	174.1	6.23	21.1	226.9
SW005	08 Nov 2019	201911_AECOM_OMP	No Flow, dark grey, organic odour	0.81	16.8	486.8	6.97	-145.6	60.2
SW005	14 May 2020	202005_AECOM_OMP	Moderate turbidity, organic odour, no sheen, organic material on the surface.	0.79	9.4	666.0	7.01	-165.0	40.8
SW005	12 Nov 2020	202011_AECOM_OMP	Clear, Medium Turbidity, No odours or sheen noted, Green Algae, No flow	0.06	16.7	557.0	7.04	-78.6	127.2
SW005	06 May 2021	202105_AECOM_OMP	Brown, medium turbidity, no odour, low flor	2.55	15.3	1,332.0	7.10	73.3	279.1
SW005	25 Nov 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Medium turbidity, No sheen	0.81	22.0	1,642.0	7.62	5.4	211.2
SW005	26 May 2022	202205_AECOM_OMP	Light brown, low turbidity, no odour, biosheen appearance	2.37	15.6	1,496.0	7.56	82.0	287.8
SW005	11 Nov 2022	202211_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	0.89	19.3	1,432.0	7.38	-44.3	161.5
SW005	11 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	0.63	13.0	966.0	7.01	3.9	209.7
SW007	08 Nov 2019	201911_AECOM_OMP	Pale brown, moderate turbidity, moderate organic material, organic odour, organic sheen	0.21	17.9	963.5	6.68	-161.4	44.4
SW007	14 May 2020	202005_AECOM_OMP	Clear in colour, moderate turbidity - suspended organic solids, organic odour, no sheen, organic material on the surface.	0.82	9.6	1,375.0	6.65	-56.9	148.9
SW007	12 Nov 2020	202011_AECOM_OMP	Brown, Medium Turbidity, No odours or sheen noted, No Flow	0.78	18.2	538.0	7.42	-51.6	154.2
SW007	06 May 2021	202105_AECOM_OMP	Brown, low turbidity, no odour	5.75	17.0	1,355.0	7.11	62.8	268.6
SW007	29 Nov 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Low turbidity, No sheen	2.18	18.3	706.0	7.16	-26.7	179.1
SW007	26 May 2022	202205_AECOM_OMP	Clear, low turbidity, no odour, no sheen	4.71	16.4	1,504.0	7.31	48.2	254.0
SW007	11 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, biosheen.	1.82	20.5	1,332.0	6.79	32.0	237.8
SW007	11 May 2023	202305_AECOM_OMP	Light brown, medium turbidity, no odour, biosheen.	1.39	15.0	1,004.0	6.81	59.1	264.9
SW008	08 Nov 2019	201911_AECOM_OMP	Low to moderate turbidity, pale brown, organic odour	2.05	21.2	534.2	7.07	-19.5	186.3
SW008	14 May 2020	202005_AECOM_OMP	Clear in colour, high turbidity - suspended organic solids, organic odour, organic sheen, some organic material on the surface.	1.24	11.9	959.0	6.63	-106.4	99.4
SW008	12 Nov 2020	202011_AECOM_OMP	Brown, Medium to High Turbidity, No odours or sheen noted, No Flow	4.76	27.1	652.0	6.71	-2.1	203.7
SW008	06 May 2021	202105_AECOM_OMP	Brown, medium turbidity, no odour	1.23	17.7	1,344.0	6.35	3.7	209.5
SW008	29 Nov 2021	202205_AECOM_OMP	Yellowish Brown, No odour, Medium turbidity, No sheen	2.59	19.4	462.1	6.35	20.4	226.2
SW008	26 May 2022	202205_AECOM_OMP	Clear, low turbidity, no odour, no sheen	3.26	17.9	1,018.0	6.87	54.0	259.8
SW008	11 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	6.59	32.2	11.9	7.58	26.3	232.1
SW008	11 May 2023	202305_AECOM_OMP	Ligh yellow, low turbidity, no odour, biosheen.	3.13	16.3	876.0	6.67	61.3	267.1
SW009	14 May 2020	202005_AECOM_OMP	Clear in colour with pale green tinge, moderate turbidity - suspended organic solids, no odour, organic sheen, organic material on the surface.	4.67	12.4	963.0	6.94	-53.8	152.0
SW009	12 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	4.47	19.6	146.5	6.70	54.6	260.4
SW009	06 May 2021	202105_AECOM_OMP	Brown to yellow, medium turbidity, no odour	7.45	17.7	115.6	6.58	42.5	248.3
SW009	29 Nov 2021	202205_AECOM_OMP	Yellowish Brown, No odour, Low turbidity, No sheen	3.88	19.1	309.5	6.68	-21.1	184.7
SW009	26 May 2022	202205_AECOM_OMP	Clear, low turbidity, no odour, no sheen	5.21	18.4	562.0	7.05	45.9	251.7
SW009	18 Nov 2022	202211_AECOM_OMP	Light brown, medium turbidity, no odour, biosheen.	3.97	20.6	1,021.0	6.94	100.0	305.8
SW009	11 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	5.94	15.8	801.0	6.78	68.3	274.1
SW011	08 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, minor suspended solids	6.66	22.3	270.4	7.23	82.7	288.5
SW011	15 May 2020	202005_AECOM_OMP	Clear in colour, low turbidity, no odour.	8.06	14.5	202.2	6.70	145.2	351.0
SW011	12 Nov 2020	202011_AECOM_OMP	Clear, Low to Medium Turbidity, Dense green algae, No odours or sheen noted	10.06	25.8	86.5	8.41	48.0	253.8
SW011	07 May 2021	202105_AECOM_OMP	Yellow-brown, low turbidity, no odour	6.89	18.3	54.6	7.38	59.9	265.7
SW011	29 Nov 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Low turbidity, No sheen	4.94	20.3	73.2	6.87	34.1	239.9
SW011	27 May 2022	202205_AECOM_OMP	Light brown, no turbidity, no odour, no sheen	9.27	18.4	193.2	8.07	89.3	295.1
SW011	11 Nov 2022	202211_AECOM_OMP	Light yellow, low turbidity, no odour, no sheen.	5.22	27.9	245.0	7.75	52.7	258.5
SW011	11 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	10.15	18.8	77.4	8.65	46.2	252.0
SW013	08 Nov 2019	201911_AECOM_OMP	Clear, low turbidity, minor suspended organic solids	5.62	20.2	395.2	7.26	-69.4	136.4
SW013	14 May 2020	202005_AECOM_OMP	Pale brown, low turbidity - trace suspended organic solids, organic odour.	0.48	11.1	288.3	6.44	6.1	211.9
SW013	12 Nov 2020	202011_AECOM_OMP	Pale Brown, Low Turbidity, No odours or sheen noted	0.56	21.5	385.5	6.81	2.6	208.4
SW013	06 May 2021	202105_AECOM_OMP	Brown to yellow, medium turbidity, no odour	4.53	18.0	417.6	7.13	31.9	237.7
SW013	29 Nov 2021	202205_AECOM_OMP	Yellowish Brown, Organic Odour, Low turbidity, No sheen	0.23	18.5	355.5	6.89	-75.3	130.5
SW013	27 May 2022	202205_AECOM_OMP	Light olive brown, low turbidity, no odour, biosheen appearance	10.38	19.0	778.0	7.66	135.4	341.2
SW013	18 Nov 2022	202211_AECOM_OMP	Clear, no turbidity,no odour, no sheen.	2.10	22.5	604.0	7.05	59.8	265.6

Table T2 - Surface Water Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
SW013	11 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	5.96	19.8	865.0	7.07	69.6	275.4
SW014	08 Nov 2019	201911_AECOM_OMP	Brown, slightly turbid, suspendid organic solids	0.14	19.1	129.1	6.34	-6.9	198.9
SW014	14 May 2020	202005_AECOM_OMP	Clear in colour, low to moderate turbidity - minor organic suspended solids, slight organic sheen, no odour.	0.79	12.0	191.9	6.29	-111.4	94.4
SW014	12 Nov 2020	202011_AECOM_OMP	No odour, Decaying organic battery, car battery present	0.34	19.2	94.7	6.65	-48.0	157.8
SW014	06 May 2021	202105_AECOM_OMP	Brown, low to medium turbidity, no odour, moderate flow	1.34	20.4	370.8	5.68	114.2	320.0
SW014	25 Nov 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Low turbidity, No sheen	1.86	19.5	66.5	5.70	75.3	281.1
SW014	26 May 2022	202205_AECOM_OMP	Light brown, low turbidity, organic odour, no sheen	0.60	13.5	147.0	6.78	10.7	216.5
SW014	11 Nov 2022	202211_AECOM_OMP	Brown, high turbidity, no odour, biosheen.	0.49	17.4	159.8	6.34	-77.4	128.4
SW014	11 May 2023	202305_AECOM_OMP	Brown, high turbidity, no odour, biosheen.	1.01	10.6	157.1	6.92	-96.0	109.8
SW015	14 May 2020	202005_AECOM_OMP	Pale yellow. Low to moderate turbidity, no odour or sheen, dead vegetation on the surface.	3.68	10.4	485.0	7.35	-66.1	139.7
SW015	12 Nov 2020	202011_AECOM_OMP	Yellow, Low Turbidity, Slight Organic Odour, No sheen noted, Sample 0.765 below surface	0.44	18.1	750.0	7.05	-77.6	128.2
SW015	05 May 2021	202105_AECOM_OMP	Light brown, medium turbidity, no odour, low flow	1.34	20.4	370.8	5.68	114.2	320.0
SW015	29 Nov 2021	202205_AECOM_OMP	Yellowish Brown, No odour, Low turbidity	0.83	16.7	694.0	6.71	10.3	216.1
SW015	30 May 2022	202205_AECOM_OMP	Light olive brown, low turbidity, no odour, no sheen	4.61	12.8	1,559.0	7.45	73.3	279.1
SW015	10 Nov 2022	202211_AECOM_OMP	Light yellow, low turbidity, no odour, no sheen.	3.39	27.3	1,880.0	7.66	97.3	303.1
SW015	10 May 2023	202305_AECOM_OMP	Brown, high turbidity, no odour, biosheen.	2.30	12.1	970.0	6.86	2.6	208.4
SW015	09 Jun 2023	202305_AECOM_OMP	Light yellow, low turbidity, no odour, no sheen.	8.71	14.7	1,211.0	7.61	151.3	357.1
SW016	14 Nov 2019	201911_AECOM_OMP	High turbidity, Brown/Green, floating suspended organics	2.06	19.7	546.6	7.31	150.3	356.1
SW016	14 May 2020	202005_AECOM_OMP	Pale yellow, low turbidity, no odour, algae on the surface.	0.62	9.8	411.9	6.67	-3.2	202.6
SW016	13 Nov 2020	202011_AECOM_OMP	Yellow, Medium Turbidity, Green algae, No odours or sheen noted	0.53	18.2	384.0	6.74	59.8	265.6
SW016	05 May 2021	202105_AECOM_OMP	Light brown, medium turbidity, no odour, low flow	0.65	15.8	608.0	7.14	79.3	285.1
SW016	29 Nov 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Medium turbidity, No sheen	0.32	16.7	168.6	6.47	28.7	234.5
SW016	31 May 2022	202205_AECOM_OMP	Olive yellow, medium turbidity, organic odour, biosheen appearance	3.00	13.6	572.0	7.13	101.4	307.2
SW016	10 Nov 2022	202211_AECOM_OMP	Light grey, low turbidity, no odour, biosheen.	5.04	24.8	715.0	7.49	88.0	293.8
SW016	10 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.38	12.3	204.2	6.15	42.3	248.1
SW016	09 Jun 2023	202305_AECOM_OMP	Light yellow, low turbidity, no odour, no sheen.	2.56	13.5	343.2	6.96	37.6	243.4
SW018	25 Nov 2019	201911_AECOM_OMP	Clear to light green/brown, organic odour, sheen	4.95	23.0	522.0	7.72	8.8	214.6
SW018	15 May 2020	202005_AECOM_OMP	Clear in colour, low turbidity, no odour.	7.16	16.5	217.7	7.50	106.5	312.3
SW018	13 Nov 2020	202011_AECOM_OMP	Pale Yellow, Medium Turbidity, Low Flow, No odours or sheen noted	6.91	21.3	179.3	7.90	97.8	303.6
SW018	06 May 2021	202105_AECOM_OMP	Yellow, low turbidity, no odour	4.52	18.6	1,789.0	6.45	60.2	266.0
SW018	29 Nov 2021	202205_AECOM_OMP	Brown, Medium turbidity	3.73	19.1	206.6	6.75	58.7	264.5
SW018	31 May 2022	202205_AECOM_OMP	Light olive brown, medium turbidity, no odour, no sheen	6.12	15.2	623.0	7.01	146.3	352.1
SW018	07 Nov 2022	202211_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	5.09	24.1	188.0	6.97	119.4	325.2
SW018	10 May 2023	202305_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	8.49	12.4	293.2	6.84	116.2	322.0
SW019	25 Nov 2019	201911_AECOM_OMP	Clear- light brown, slight organic sheen, no odour	2.14	23.1	2,950.0	7.55	83.5	289.3
SW019	15 May 2020	202005_AECOM_OMP	Pale yellow, low to moderate turbidity - minor organic suspended solids, organic sheen, no odour.	7.78	14.0	1,086.0	7.31	64.4	270.2
SW019	13 Nov 2020	202011_AECOM_OMP	Pale Yellow, Low Turbidity, Medium Flow, No odours or sheen noted	4.90	25.1	633.0	7.35	72.9	278.7
SW019	07 May 2021	202105_AECOM_OMP	Yellow, low turbidity, no odour	6.24	18.9	1,281.0	7.03	78.7	284.5
SW019	29 Nov 2021	202205_AECOM_OMP	Brown, Turbid, No sheen	3.26	20.0	201.4	6.60	63.2	269.0
SW019	31 May 2022	202205_AECOM_OMP	Light olive brown, medium turbidity, no odour, no sheen	5.92	11.8	627.0	7.36	151.5	357.3
SW019	07 Nov 2022	202211_AECOM_OMP	Light brown, no turbidity, no odour, no sheen. Suspended solids.	1.38	23.5	1,006.0	6.62	36.1	241.9
SW019	10 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	3.70	13.5	835.0	6.75	53.3	259.1
SW020	25 Nov 2019	201911_AECOM_OMP	Light Brown, slight organic sheen, no odour	3.95	28.1	2,261.0	7.41	110.1	315.9
SW020	15 May 2020	202005_AECOM_OMP	Pale yellow, low to moderate turbidity - minor organic suspended solids, organic sheen, no odour.	11.10	15.1	1,147.0	7.08	91.4	297.2
SW020	13 Nov 2020	202011_AECOM_OMP	Pale Yellow, Medium Turbidity, Low Flow, No odours or sheen noted	9.00	26.3	646.0	7.44	74.9	280.7
SW020	07 May 2021	202105_AECOM_OMP	Yellow-brown, medium turbidity, no odour	5.84	18.6	729.0	7.09	61.5	267.3
SW020	29 Nov 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Low turbidity, No sheen	3.93	19.2	6.6	6.63	51.4	257.2
SW020	31 May 2022	202205_AECOM_OMP	Light olive brown, low turbidity, no odour, no sheen	4.79	12.2	669.0	6.93	147.3	353.1
SW020	07 Nov 2022	202211_AECOM_OMP	Light yellow, no turbidity, no odour, no sheen.	9.55	27.1	1,134.0	8.37	90.9	296.7
SW020	10 May 2023	202305_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	8.01	15.1	839.0	7.21	80.7	286.5
SW022	15 Nov 2019	201911_AECOM_OMP	Light brown, suspended solids, slight organic odour	6.07	26.4	388.5	7.24	129.9	335.7
SW022	15 May 2020	202005_AECOM_OMP	Pale orange to brown, moderate turbidity, no odour.	5.66	14.8	197.9	7.28	119.8	325.6
SW022	13 Nov 2020	202011_AECOM_OMP	Pale Yellow, Medium Turbidity, Aquatic vegetation, No odours or sheen noted	1.44	20.9	92.3	6.97	101.4	307.2
SW022	05 May 2021	202105_AECOM_OMP	Light yellow, organic matter, low flow	6.61	18.4	140.2	7.08	73.1	278.9
SW022	29 Nov 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Low turbidity, No sheen	1.85	18.7	134.6	6.65	29.1	234.9
SW022	30 May 2022	202205_AECOM_OMP	Light olive brown, low turbidity, no odour, no sheen	2.20	14.3	789.0	7.32	89.8	295.6
SW022	03 Nov 2022	202211_AECOM_OMP	Light yellow, no turbidity, no odour, no sheen.	2.89	22.2	631.0	7.31	119.9	325.7
SW022	09 May 2023	202305_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	4.61	14.2	329.2	6.91	35.6	241.4
SW023	11 Nov 2019	201911_AECOM_OMP	Low turbidity, dark brown, slight organic odour	1.45	21.7	1,510.7	7.18	-80.0	125.8
SW023	15 May 2020	202005_AECOM_OMP	Clear in colour, low turbidity, no odour.	5.73	12.0	1,002.0	6.83	116.9	322.7
SW023	13 Nov 2020	202011_AECOM_OMP	Pale Yellow, Medium Turbidity, Fast Flow, No odours or sheen noted	4.65	22.7	561.0	6.78	67.8	273.6
SW023	06 May 2021	202105_AECOM_OMP	Yellow to green, low turbidity, no odour	4.68	18.8	1,457.0	6.76	50.9	256.7
SW023	25 Nov 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Low turbidity, No sheen	5.64	23.9	615.0	6.90	72.0	277.8
SW023	31 May 2022	202205_AECOM_OMP	Light olive brown, low turbidity, no odour, no sheen	5.58	12.3	726.0	6.96	166.0	371.8
SW023	07 Nov 2022	202211_AECOM_OMP	Light yellow, no turbidity, no odour, no sheen.	4.26	25.3	1,002.0	6.71	109.3	315.1
SW023	10 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	3.75	11.8	707.0	6.71	108.5	314.3
SW024	15 Nov 2019	201911_AECOM_OMP	Clear, no odour, very low turbidity	9.66	25.2	348.3	8.41	160.0	365.8

Table T2 - Surface Water Quality Parameters and Observations

				Water Quality Parameters					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
				mg/L	°C	uS/cm	pH Units	mV	mV
Location Code	**Date**	**Monitoring Round**	**Sample Comments**						
SW024	14 May 2020	202005_AECOM_OMP	Pale yellow, low turbidity, organic sheen, no odour	5.75	14.6	56.2	6.33	42.3	248.1
SW024	12 Nov 2020	202011_AECOM_OMP	Clear, Low Turbidity, No odours or sheen noted	7.68	21.0	157.9	7.51	49.1	254.9
SW024	05 May 2021	202105_AECOM_OMP	Light brown, no odour, low flow	7.31	17.6	248.2	6.53	68.5	274.3
SW024	01 Dec 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Low turbidity, No sheen	7.37	19.3	139.6	7.10	153.3	359.1
SW024	31 May 2022	202205_AECOM_OMP	Light olive brown, no turbidity, no odour, no sheen	6.70	15.9	118.2	7.25	147.2	353.0
SW024	03 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen. Foam in water.	5.34	24.9	176.8	7.36	140.6	346.4
SW024	09 May 2023	202305_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	5.72	18.0	256.7	6.79	97.7	303.5
SW030	15 Nov 2019	201911_AECOM_OMP	clear to light brown, no to low turbidity, no odour	9.97	28.0	568.1	8.28	189.9	395.7
SW030	15 May 2020	202005_AECOM_OMP	Clear in colour, low turbidity, no odour.	7.58	16.1	229.6	7.24	40.8	246.6
SW030	13 Nov 2020	202011_AECOM_OMP	Light Olive Brown, Low Turbidity, Slow Flow, No odours or sheen noted	9.54	21.8	171.5	7.68	72.4	278.2
SW030	07 May 2021	202105_AECOM_OMP	Yellow, low turbidity, no odour	8.64	18.6	391.9	7.22	57.5	263.3
SW030	29 Nov 2021	202205_AECOM_OMP	Yellowish Brown, No odour, Low turbidity, No sheen	9.46	18.0	131.7	7.51	38.3	244.1
SW030	31 May 2022	202205_AECOM_OMP	Light olive brown, no turbidity, no odour, no sheen	6.25	16.7	127.3	7.14	137.1	342.9
SW030	07 Nov 2022	202211_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	6.02	22.8	134.4	6.86	80.6	286.4
SW030	10 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	8.33	12.3	374.4	6.27	119.4	325.2
SW032	12 May 2020	202005_AECOM_OMP	Clear in colour, low turbidity, organic sheen, no odour, tadpoles present.	7.01	16.6	592.0	6.71	176.2	382.0
SW032	04 May 2021	202105_AECOM_OMP	Yellow, low turbidity, medium flow	6.73	17.7	949.0	7.47	77.7	283.5
SW032	14 Dec 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Low turbidity, No sheen	5.50	28.9	781.0	7.47	95.8	301.6
SW035	15 Nov 2019	201911_AECOM_OMP	Light brown, moderate to low turbidity, slight organic odour	0.09	20.8	846.0	6.16	41.2	247.0
SW035	14 May 2020	202005_AECOM_OMP	Pale brown, no odour or sheen.	6.99	14.6	77.3	7.02	45.6	251.4
SW035	13 Nov 2020	202011_AECOM_OMP	Light Olive Brown, Low Turbidity, Slow Flow, No odours or sheen noted	6.05	23.9	78.4	6.94	95.6	301.4
SW035	06 May 2021	202105_AECOM_OMP	Brown, low to medium turbidity, no odour, no flow	7.54	18.2	167.1	7.21	38.5	244.3
SW035	25 Nov 2021	202205_AECOM_OMP	Light Olive Brown, No odour, Low turbidity, No sheen	6.06	25.1	139.7	7.68	112.5	318.3
SW035	30 May 2022	202205_AECOM_OMP	Light olive brown, low turbidity, no odour, no sheen	3.24	15.8	294.0	7.14	117.8	323.6
SW035	03 Nov 2022	202211_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	12.44	25.9	347.3	7.52	160.5	366.3
SW035	09 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	9.06	19.4	265.1	7.45	57.3	263.1
SW037	11 Nov 2019	201911_AECOM_OMP	Pale green, moderate turbidity, suspended algae, organic odour	11.30	25.0	840.4	9.58	21.7	227.5
SW037	14 May 2020	202005_AECOM_OMP	Clear in colour, low turbidity - trace suspended organic solids, no odour, algae on the surface.	6.66	15.4	282.7	7.77	38.7	244.5
SW037	13 Nov 2020	202011_AECOM_OMP	Clear, Medium Turbidity, Trace foam, medium flow, No odours or sheen noted	12.75	25.2	484.9	10.18	28.1	233.9
SW037	05 May 2021	202105_AECOM_OMP	Green, turbid, no odour, algae present	9.23	16.4	204.6	9.02	-27.4	178.4
SW037	29 Nov 2021	202205_AECOM_OMP	Light Olive Brown, Organic Odour, Low turbidity, No sheen	0.00	18.3	384.5	6.83	-171.6	34.2
SW037	27 May 2022	202205_AECOM_OMP	Light brown, no turbidity, no odour, no sheen	5.58	16.1	297.4	7.66	77.5	283.3
SW037	08 Nov 2022	202211_AECOM_OMP	Light brown, no turbidity, no odour, no sheen.	6.03	26.0	217.7	8.08	17.1	222.9
SW037	08 May 2023	202305_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	6.17	15.2	317.9	7.60	61.4	267.2

Notes

mV	milliVolts
mg/L	milligrams per Litre
°C	degrees Celsius
µS/cm	microSiemens per centimetre

Corrected field Redox measurement Eh = Er + 205.8

Table T3 - Groundwater Gauging and Observations

Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	Date	Monitoring Round	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit / Gauging Comment
MW001	BBNA-NAA-MW01, MW01	10.052	6	9	6/05/2021	202105_AECOM_OMP	5.130	4.922	9.41	
MW001	BBNA-NAA-MW01, MW01	10.052	6	9	29/11/2021	202211_AECOM_OMP	5.491	4.561	9.41	
MW001	BBNA-NAA-MW01, MW01	10.052	6	9	26/05/2022	202205_AECOM_OMP	4.651	5.401	9.38	
MW001	BBNA-NAA-MW01, MW01	10.052	6	9	11/11/2022	202211_AECOM_OMP	5.012	5.040	7.40	Good condition.
MW001	BBNA-NAA-MW01, MW01	10.052	6	9	11/05/2023	202305_AECOM_OMP	6.011	4.041	9.39	Good condition. Hydrasleeve reinstall depth 7.5 m. Hydrasleeve reinstall depth 1 m.
MW002	BBNA-NAA-MW02A, MW02	9.860	6	9	6/05/2021	202105_AECOM_OMP	3.950	5.910	9.82	
MW002	BBNA-NAA-MW02A, MW02	9.860	6	9	29/11/2021	202211_AECOM_OMP	4.031	5.829	9.82	
MW002	BBNA-NAA-MW02A, MW02	9.860	6	9	26/05/2022	202205_AECOM_OMP	3.400	6.460	9.76	
MW002	BBNA-NAA-MW02A, MW02	9.860	6	9	11/11/2022	202211_AECOM_OMP	3.857	6.003	9.77	Good condition.
MW002	BBNA-NAA-MW02A, MW02	9.860	6	9	11/05/2023	202305_AECOM_OMP	4.896	4.964	9.76	Good condition. Hydrasleeve reinstall depth 8 m.
MW004	BBNA-NAA-MW03, MW04	7.180	9	12	25/11/2021	202211_AECOM_OMP	1.472	5.708	12.93	
MW004	BBNA-NAA-MW03, MW04	7.180	9	12	26/05/2022	202205_AECOM_OMP	0.652	6.528	12.88	
MW004	BBNA-NAA-MW03, MW04	7.180	9	12	11/11/2022	202211_AECOM_OMP	1.101	6.079	12.90	Good condition. No J-cap.
MW004	BBNA-NAA-MW03, MW04	7.180	9	12	11/05/2023	202305_AECOM_OMP	2.031	5.149	13.50	Good condition. Hydrasleeve reinstall depth 11.0 m.
MW005	BBNA-BH24/5, MW05	9.113	unknown	unknown	6/05/2021	202105_AECOM_OMP	2.748	6.365	9.90	
MW005	BBNA-BH24/5, MW05	9.113	unknown	unknown	25/11/2021	202211_AECOM_OMP	3.078	6.035	9.92	
MW005	BBNA-BH24/5, MW05	9.113	unknown	unknown	26/05/2022	202205_AECOM_OMP	1.821	7.292	9.91	
MW005	BBNA-BH24/5, MW05	9.113	unknown	unknown	11/11/2022	202211_AECOM_OMP	2.171	6.942	9.91	Good condition. No Hydrasleeve present.
MW005	BBNA-BH24/5, MW05	9.113	unknown	unknown	11/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 7 m.
MW005	BBNA-BH24/5, MW05	9.113	unknown	unknown	11/05/2023	202305_AECOM_OMP	3.229	5.884	9.90	Good condition. Hydrasleeve reinstall depth 8 m.
MW007	BBRS-NAA-MW01, MW07	16.030	9	12	3/05/2021	202105_AECOM_OMP	9.078	6.952	11.70	
MW007	BBRS-NAA-MW01, MW07	16.030	9	12	23/11/2021	202211_AECOM_OMP	8.959	7.071	11.71	
MW007	BBRS-NAA-MW01, MW07	16.030	9	12	25/05/2022	202205_AECOM_OMP	7.816	8.214	11.97	
MW007	BBRS-NAA-MW01, MW07	16.030	9	12	2/11/2022	202211_AECOM_OMP	7.546	8.484	11.70	Good condition. No Hydrasleeve present.
MW007	BBRS-NAA-MW01, MW07	16.030	9	12	12/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 9 m.
MW007	BBRS-NAA-MW01, MW07	16.030	9	12	15/05/2023	202305_AECOM_OMP	8.061	7.969	11.71	Good condition. Hydrasleeve reinstall depth 9.5 m.
MW008	BBRW-NAA-MW01, MW08	20.930	12	15	3/05/2021	202105_AECOM_OMP	12.894	8.036	16.14	
MW008	BBRW-NAA-MW01, MW08	20.930	12	15	23/11/2021	202211_AECOM_OMP	13.062	7.868	16.15	
MW008	BBRW-NAA-MW01, MW08	20.930	12	15	25/05/2022	202205_AECOM_OMP	11.690	9.240	16.49	
MW008	BBRW-NAA-MW01, MW08	20.930	12	15	2/11/2022	202211_AECOM_OMP	11.485	9.445	16.10	Good condition.
MW008	BBRW-NAA-MW01, MW08	20.930	12	15	12/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 13.5 m.
MW008	BBRW-NAA-MW01, MW08	20.930	12	15	12/05/2023	202305_AECOM_OMP	12.255	8.675	16.09	Good condition. Hydrasleeve reinstall depth 14 m.
MW009	BBRW-BHB5, MW09	20.440	unknown	unknown	3/05/2021	202105_AECOM_OMP	12.244	8.196	13.19	
MW009	BBRW-BHB5, MW09	20.440	unknown	unknown	23/11/2021	202211_AECOM_OMP	12.492	7.948	13.14	
MW009	BBRW-BHB5, MW09	20.440	unknown	unknown	25/05/2022	202205_AECOM_OMP	11.124	9.316	13.16	
MW009	BBRW-BHB5, MW09	20.440	unknown	unknown	2/11/2022	202211_AECOM_OMP	10.854	9.586	13.12	Good condition. No Hydrasleeve present.
MW009	BBRW-BHB5, MW09	20.440	unknown	unknown	12/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 10.5 m.
MW009	BBRW-BHB5, MW09	20.440	unknown	unknown	12/05/2023	202305_AECOM_OMP	11.633	8.807	13.11	Good condition. Hydrasleeve reinstall depth 11 m.
MW010	BBA-NAA-MW01, MW10	21.060	18	21	3/05/2021	202105_AECOM_OMP	12.760	8.300	21.83	
MW010	BBA-NAA-MW01, MW10	21.060	18	21	23/11/2021	202211_AECOM_OMP	12.880	8.180	21.80	
MW010	BBA-NAA-MW01, MW10	21.060	18	21	25/05/2022	202205_AECOM_OMP	11.566	9.494	21.76	
MW010	BBA-NAA-MW01, MW10	21.060	18	21	2/11/2022	202211_AECOM_OMP	11.300	9.760	21.78	Good condition. No Hydrasleeve present.
MW010	BBA-NAA-MW01, MW10	21.060	18	21	12/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 19 m.
MW010	BBA-NAA-MW01, MW10	21.060	18	21	12/05/2023	202305_AECOM_OMP	11.930	9.130	21.77	Good condition. Hydrasleeve reinstall depth 19.5 m.
MW012	SW0257-NAA-MW01, MW12	6.640	1	4	6/05/2021	202105_AECOM_OMP	0.434	6.206	n/m	
MW012	SW0257-NAA-MW01, MW12	6.640	1	4	29/11/2021	202211_AECOM_OMP	0.478	6.162	5.20	
MW012	SW0257-NAA-MW01, MW12	6.640	1	4	27/05/2022	202205_AECOM_OMP	0.110	6.530	4.10	well casing damaged
MW012	SW0257-NAA-MW01, MW12	6.640	1	4	18/11/2022	202211_AECOM_OMP	n/a	n/a	n/a	Well damaged.
MW012	SW0257-NAA-MW01, MW12	6.640	1	4	18/11/2022	202211_AECOM_OMP	0.027	6.613	4.19	Monument bent, obstructed at ground level when using bailer. No Hydrasleeve present.
MW012	SW0257-NAA-MW01, MW12	6.640	1	4	11/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Monument slightly bent at ground level. Hydrasleeve installed (cannot be deployed beyond 2 m due to partial blockage).
MW012	SW0257-NAA-MW01, MW12	6.640	1	4	11/05/2023	202305_AECOM_OMP	0.661	5.979	4.22	Monument slightly bent at ground level. Partial blockage at 2 m. Hydrasleeve reinstall depth 1.0 m.
MW013	SW0257-NAA-MW02, MW13	7.930	4	7	6/05/2021	202105_AECOM_OMP	0.110	7.820	6.05	
MW013	SW0257-NAA-MW02, MW13	7.930	4	7	29/11/2021	202211_AECOM_OMP	0.123	7.807	6.05	
MW013	SW0257-NAA-MW02, MW13	7.930	4	7	27/05/2022	202205_AECOM_OMP	0.020	7.910	6.06	
MW013	SW0257-NAA-MW02, MW13	7.930	4	7	18/11/2022	202211_AECOM_OMP	0.041	7.889	6.06	Good condition.
MW013	SW0257-NAA-MW02, MW13	7.930	4	7	11/05/2023	202305_AECOM_OMP	0.512	7.418	6.06	Good condition. Hydrasleeve reinstall depth 5 m.
MW014	SW0257-NAA-MW03, MW14	6.240	5	8	6/05/2021	202105_AECOM_OMP	0.125	6.115	9.43	
MW014	SW0257-NAA-MW03, MW14	6.240	5	8	29/11/2021	202211_AECOM_OMP	0.284	5.956	9.44	
MW014	SW0257-NAA-MW03, MW14	6.240	5	8	27/05/2022	202205_AECOM_OMP	0.110	6.130	9.42	
MW014	SW0257-NAA-MW03, MW14	6.240	5	8	18/11/2022	202211_AECOM_OMP	0.112	6.128	9.42	Good condition.
MW014	SW0257-NAA-MW03, MW14	6.240	5	8	11/05/2023	202305_AECOM_OMP	0.861	5.379	9.42	Good condition. Hydrasleeve reinstall depth 7.0 m.
MW015	SW0257-NAA-MW04, MW15	7.020	6	9	6/05/2021	202105_AECOM_OMP	0.638	6.382	9.00	
MW015	SW0257-NAA-MW04, MW15	7.020	6	9	29/11/2021	202211_AECOM_OMP	0.771	6.249	9.06	
MW015	SW0257-NAA-MW04, MW15	7.020	6	9	27/05/2022	202205_AECOM_OMP	0.320	6.700	9.05	
MW015	SW0257-NAA-MW04, MW15	7.020	6	9	18/11/2022	202211_AECOM_OMP	0.291	6.729	8.98	Good condition.
MW015	SW0257-NAA-MW04, MW15	7.020	6	9	11/05/2023	202305_AECOM_OMP	0.986	6.034	8.98	Good condition. Hydrasleeve reinstall depth 7 m.
MW016	SW0257-NAA-MW05, MW16	7.390	2	5	6/05/2021	202105_AECOM_OMP	1.438	5.952	5.98	
MW016	SW0257-NAA-MW05, MW16	7.390	2	5	29/11/2021	202211_AECOM_OMP	1.463	5.927	5.98	
MW016	SW0257-NAA-MW05, MW16	7.390	2	5	26/05/2022	202205_AECOM_OMP	0.905	6.485	6.01	
MW016	SW0257-NAA-MW05, MW16	7.390	2	5	11/11/2022	202211_AECOM_OMP	1.279	6.111	5.98	Good condition.
MW016	SW0257-NAA-MW05, MW16	7.390	2	5	11/05/2023	202305_AECOM_OMP	1.655	5.735	5.99	Good condition. Hydrasleeve reinstall depth 4 m.
MW017	SW0257-BHFF8, MW17	6.510	unknown	unknown	6/05/2021	202105_AECOM_OMP	1.567	4.943	4.85	
MW017	SW0257-BHFF8, MW17	6.510	unknown	unknown	29/11/2021	202211_AECOM_OMP	0.715	5.795	4.82	
MW017	SW0257-BHFF8, MW17	6.510	unknown	unknown	27/05/2022	202205_AECOM_OMP	0.685	5.825	4.83	
MW017	SW0257-BHFF8, MW17	6.510	unknown	unknown	18/11/2022	202211_AECOM_OMP	0.937	5.573	4.84	Good condition.
MW017	SW0257-BHFF8, MW17	6.510	unknown	unknown	11/05/2023	202305_AECOM_OMP	1.149	5.361	4.89	Good condition. Hydrasleeve reinstall depth 3 m.
MW019	SW0257-BHB3, MW19	6.700	unknown	unknown	5/05/2021	202105_AECOM_OMP	n/a	n/a	n/a	Unable to locate.

Table T3 - Groundwater Gauging and Observations

Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	Date	Monitoring Round	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit / Gauging Comment
MW020	SW0057-STP2, MW20	8.945	unknown	unknown	5/05/2021	202105_AECOM_OMP	3.323	5.622	6.53	
MW020	SW0057-STP2, MW20	8.945	unknown	unknown	24/11/2021	202211_AECOM_OMP	2.562	6.383	6.53	
MW020	SW0057-STP2, MW20	8.945	unknown	unknown	27/05/2022	202205_AECOM_OMP	2.012	6.933	6.53	
MW020	SW0057-STP2, MW20	8.945	unknown	unknown	8/11/2022	202211_AECOM_OMP	2.140	6.805	6.61	Good condition. No Hydrasleeve present.
MW020	SW0057-STP2, MW20	8.945	unknown	unknown	8/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 4 m.
MW020	SW0057-STP2, MW20	8.945	unknown	unknown	8/05/2023	202305_AECOM_OMP	2.880	6.065	6.53	Good condition. Hydrasleeve reinstall depth 4.5 m.
MW021	SW0057-STP3, MW21	7.880	unknown	unknown	5/05/2021	202105_AECOM_OMP	1.428	6.452	4.23	
MW021	SW0057-STP3, MW21	7.880	unknown	unknown	22/11/2021	202211_AECOM_OMP	1.050	6.830	3.51	Damaged Gatic
MW021	SW0057-STP3, MW21	7.880	unknown	unknown	24/11/2021	202211_AECOM_OMP	1.050	6.830	3.51	
MW021	SW0057-STP3, MW21	7.880	unknown	unknown	27/05/2022	202205_AECOM_OMP	0.457	7.423	3.51	
MW021	SW0057-STP3, MW21	7.880	unknown	unknown	8/11/2022	202211_AECOM_OMP	0.624	7.256	3.48	Good condition.
MW021	SW0057-STP3, MW21	7.880	unknown	unknown	8/05/2023	202305_AECOM_OMP	1.061	6.819	3.51	Good condition. Hydrasleeve reinstall depth 2 m.
MW022	SW0057-STP5, MW22	6.030	unknown	unknown	5/05/2021	202105_AECOM_OMP	0.545	5.485	3.10	
MW022	SW0057-STP5, MW22	6.030	unknown	unknown	22/11/2021	202211_AECOM_OMP	0.489	5.541	3.12	
MW022	SW0057-STP5, MW22	6.030	unknown	unknown	30/05/2022	202205_AECOM_OMP	0.282	5.748	3.12	
MW022	SW0057-STP5, MW22	6.030	unknown	unknown	8/11/2022	202211_AECOM_OMP	0.520	5.510	3.09	Monument bent, monument lid sheared off.
MW022	SW0057-STP5, MW22	6.030	unknown	unknown	8/05/2023	202305_AECOM_OMP	0.663	5.367	3.09	Mounument is damaged by floods. It has been bent and the lid has sheared off. Hydrasleeve reinstall depth 1.5m.
MW023	SW0057-STP7, MW23	6.010	unknown	unknown	5/05/2021	202105_AECOM_OMP	0.475	5.535	4.36	
MW023	SW0057-STP7, MW23	6.010	unknown	unknown	22/11/2021	202211_AECOM_OMP	0.542	5.468	4.23	
MW023	SW0057-STP7, MW23	6.010	unknown	unknown	27/05/2022	202205_AECOM_OMP	0.121	5.889	4.35	
MW023	SW0057-STP7, MW23	6.010	unknown	unknown	8/11/2022	202211_AECOM_OMP	0.444	5.566	4.28	Good condition.
MW023	SW0057-STP7, MW23	6.010	unknown	unknown	8/05/2023	202305_AECOM_OMP	0.705	5.305	4.34	Good condition. Hydrasleeve reinstall depth 3 m.
MW024	SW0256-NAA-MW01, MW24	19.920	12	15	3/05/2021	202105_AECOM_OMP	13.006	6.914	15.25	
MW024	SW0256-NAA-MW01, MW24	19.920	12	15	23/11/2021	202211_AECOM_OMP	12.696	7.224	15.11	
MW024	SW0256-NAA-MW01, MW24	19.920	12	15	25/05/2022	202205_AECOM_OMP	11.970	7.950	15.13	
MW024	SW0256-NAA-MW01, MW24	19.920	12	15	2/11/2022	202211_AECOM_OMP	11.580	8.340	16.38	Good condition. Gatic full of water below top of casing.
MW024	SW0256-NAA-MW01, MW24	19.920	12	15	12/05/2023	202305_AECOM_OMP	11.780	8.140	15.40	Good condition. Hydrasleeve reinstall depth 13.5 m.
MW025	SW0256-NAA-MW02, MW25	17.140	16	20	4/05/2021	202105_AECOM_OMP	10.360	6.780	19.98	
MW025	SW0256-NAA-MW02, MW25	17.140	16	20	22/11/2021	202211_AECOM_OMP	10.194	6.946	19.99	
MW025	SW0256-NAA-MW02, MW25	17.140	16	20	24/05/2022	202205_AECOM_OMP	9.128	8.012	20.01	
MW025	SW0256-NAA-MW02, MW25	17.140	16	20	7/11/2022	202211_AECOM_OMP	8.875	8.265	20.37	Good condition.
MW025	SW0256-NAA-MW02, MW25	17.140	16	20	9/05/2023	202305_AECOM_OMP	9.300	7.840	19.99	Good condition. Hydrasleeve reinstall depth 17 m
MW026	SW0256-NAA-MW03, MW26	16.900	9	12	4/05/2021	202105_AECOM_OMP	10.491	6.409	12.03	
MW026	SW0256-NAA-MW03, MW26	16.900	9	12	22/11/2021	202211_AECOM_OMP	10.236	6.664	12.04	
MW026	SW0256-NAA-MW03, MW26	16.900	9	12	24/05/2022	202205_AECOM_OMP	8.842	8.058	12.07	
MW026	SW0256-NAA-MW03, MW26	16.900	9	12	7/11/2022	202211_AECOM_OMP	8.838	8.062	12.04	Good condition. Gatic full of water below top of casing.
MW026	SW0256-NAA-MW03, MW26	16.900	9	12	12/05/2023	202305_AECOM_OMP	9.391	7.509	12.05	Good condition. Gatic box full of water, above TOC. Water drained prior to removing J-cap. Hydrasleeve reinstall depth 10 m.
MW027	SW0256-NAA-MW04, MW27	16.420	10	13	3/05/2021	202105_AECOM_OMP	9.628	6.792	13.18	
MW027	SW0256-NAA-MW04, MW27	16.420	10	13	23/11/2021	202211_AECOM_OMP	9.925	6.495	13.09	
MW027	SW0256-NAA-MW04, MW27	16.420	10	13	25/05/2022	202205_AECOM_OMP	8.209	8.211	13.12	
MW027	SW0256-NAA-MW04, MW27	16.420	10	13	2/11/2022	202211_AECOM_OMP	8.250	8.170	13.40	Good condition.
MW027	SW0256-NAA-MW04, MW27	16.420	10	13	12/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Location buried under disturbed ground. Metal detector used, unable to locate.
MW028	SW0256-NAA-MW05, MW28	16.900	8	11	3/05/2021	202105_AECOM_OMP	10.096	6.804	11.17	Insufficient water for water parameters
MW028	SW0256-NAA-MW05, MW28	16.900	8	11	23/11/2021	202211_AECOM_OMP	9.879	7.021	11.17	
MW028	SW0256-NAA-MW05, MW28	16.900	8	11	25/05/2022	202205_AECOM_OMP	9.185	7.715	11.42	
MW028	SW0256-NAA-MW05, MW28	16.900	8	11	2/11/2022	202211_AECOM_OMP	8.790	8.110	11.17	Good condition. Gatic full of water below top of casing.
MW028	SW0256-NAA-MW05, MW28	16.900	8	11	12/05/2023	202305_AECOM_OMP	8.841	8.059	11.17	Good condition. Hydrasleeve reinstall depth 9 m.
MW030	SW0054-BH8/8, MW30	21.262	13	18	3/05/2021	202105_AECOM_OMP	14.364	6.898	17.43	
MW030	SW0054-BH8/8, MW30	21.262	13	18	23/11/2021	202211_AECOM_OMP	14.654	6.608	16.75	
MW030	SW0054-BH8/8, MW30	21.262	13	18	26/05/2022	202205_AECOM_OMP	13.484	7.778	17.02	
MW030	SW0054-BH8/8, MW30	21.262	13	18	11/11/2022	202211_AECOM_OMP	13.555	7.707	16.98	Good condition.
MW030	SW0054-BH8/8, MW30	21.262	13	18	8/05/2023	202305_AECOM_OMP	14.239	7.023	16.86	Good condition. Hydrasleeve reinstall depth 15 m.
MW032	SW0249-NAA-MW02, MW32	17.810	12	15	5/05/2021	202105_AECOM_OMP	11.507	6.303	n/m	
MW032	SW0249-NAA-MW02, MW32	17.810	12	15	24/11/2021	202211_AECOM_OMP	11.987	5.823	14.31	
MW032	SW0249-NAA-MW02, MW32	17.810	12	15	24/05/2022	202205_AECOM_OMP	11.844	5.966	14.65	
MW032	SW0249-NAA-MW02, MW32	17.810	12	15	10/11/2022	202211_AECOM_OMP	11.188	6.622	14.30	Good condition. Gatic full of water below top of casing. No Hydrasleeve present.
MW032	SW0249-NAA-MW02, MW32	17.810	12	15	15/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 12 m.
MW032	SW0249-NAA-MW02, MW32	17.810	12	15	15/05/2023	202305_AECOM_OMP	12.049	5.761	14.31	Good condition. Hydrasleeve reinstall depth 12.5 m.
MW033	SW0249-NAA-MW03, MW33	14.840	10	13	5/05/2021	202105_AECOM_OMP	8.578	6.262	12.62	
MW033	SW0249-NAA-MW03, MW33	14.840	10	13	24/11/2021	202211_AECOM_OMP	9.056	5.784	12.28	
MW033	SW0249-NAA-MW03, MW33	14.840	10	13	24/05/2022	202205_AECOM_OMP	7.996	6.844	12.56	
MW033	SW0249-NAA-MW03, MW33	14.840	10	13	10/11/2022	202211_AECOM_OMP	8.305	6.535	12.47	Good condition. Gatic full of water below top of casing. No Hydrasleeve present.
MW033	SW0249-NAA-MW03, MW33	14.840	10	13	15/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 10 m.
MW033	SW0249-NAA-MW03, MW33	14.840	10	13	15/05/2023	202305_AECOM_OMP	9.144	5.696	12.31	Good condition. Hydrasleeve reinstall depth 10.5 m.
MW034	SW0249-NAA-MW04, MW34	16.930	14	17	5/05/2021	202105_AECOM_OMP	10.165	6.765	16.58	
MW034	SW0249-NAA-MW04, MW34	16.930	14	17	24/11/2021	202211_AECOM_OMP	11.029	5.901	16.52	
MW034	SW0249-NAA-MW04, MW34	16.930	14	17	24/05/2022	202205_AECOM_OMP	9.310	7.620	16.96	
MW034	SW0249-NAA-MW04, MW34	16.930	14	17	10/11/2022	202211_AECOM_OMP	9.945	6.985	16.86	Good condition. Gatic full of water below top of casing.
MW034	SW0249-NAA-MW04, MW34	16.930	14	17	15/05/2023	202305_AECOM_OMP	10.976	5.954	16.61	Good condition. Hydrasleeve reinstall depth 14.5 m.
MW036	SW0263-NAA-MW01, MW36	20.820	18	22	7/05/2021	202105_AECOM_OMP	13.438	7.382	21.92	
MW036	SW0263-NAA-MW01, MW36	20.820	18	22	22/11/2021	202211_AECOM_OMP	13.816	7.004	22.00	
MW036	SW0263-NAA-MW01, MW36	20.820	18	22	27/05/2022	202205_AECOM_OMP	12.420	8.400	22.17	
MW036	SW0263-NAA-MW01, MW36	20.820	18	22	8/11/2022	202211_AECOM_OMP	12.743	8.077	22.25	Good condition.
MW036	SW0263-NAA-MW01, MW36	20.820	18	22	8/05/2023	202305_AECOM_OMP	14.531	6.289	21.96	Good condition. Hydrasleeve reinstall depth 19 m.
MW040	SW0236-NAA-MW01, MW40	19.520	15	18	3/05/2021	202105_AECOM_OMP	11.499	8.021	18.08	
MW040	SW0236-NAA-MW01, MW40	19.520	15	18	23/11/2021	202211_AECOM_OMP	11.679	7.841	17.85	
MW040	SW0236-NAA-MW01, MW40	19.520	15	18	25/05/2022	202205_AECOM_OMP	10.334	9.186	18.31	

Table T3 - Groundwater Gauging and Observations

Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	Date	Monitoring Round	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit / Gauging Comment
MW040	SW0236-NAA-MW01, MW40	19.520	15	18	2/11/2022	202211_AECOM_OMP	10.099	9.421	17.84	Gatic damaged.
MW040	SW0236-NAA-MW01, MW40	19.520	15	18	12/05/2023	202305_AECOM_OMP	10.879	8.641	17.84	Good condition. Hydrasleeve reinstall depth 15.5 m.
MW041	SW0234-NAA-MW01, MW41	19.730	14	17	3/05/2021	202105_AECOM_OMP	11.604	8.126	16.60	Gatic flooded
MW041	SW0234-NAA-MW01, MW41	19.730	14	17	23/11/2021	202211_AECOM_OMP	11.721	8.009	16.44	
MW041	SW0234-NAA-MW01, MW41	19.730	14	17	25/05/2022	202205_AECOM_OMP	10.353	9.377	16.38	
MW041	SW0234-NAA-MW01, MW41	19.730	14	17	2/11/2022	202211_AECOM_OMP	10.151	9.579	16.46	Good condition. No Hydrasleeve present.
MW041	SW0234-NAA-MW01, MW41	19.730	14	17	12/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 14 m.
MW041	SW0234-NAA-MW01, MW41	19.730	14	17	15/05/2023	202305_AECOM_OMP	10.779	8.951	16.46	Good condition. Hydrasleeve reinstall depth 14.5 m.
MW042	SW0237-NAA-MW01, MW42	18.320	13	16	3/05/2021	202105_AECOM_OMP	11.198	7.122	16.34	
MW042	SW0237-NAA-MW01, MW42	18.320	13	16	23/11/2021	202211_AECOM_OMP	11.099	7.221	16.22	
MW042	SW0237-NAA-MW01, MW42	18.320	13	16	25/05/2022	202205_AECOM_OMP	10.122	8.198	16.23	
MW042	SW0237-NAA-MW01, MW42	18.320	13	16	2/11/2022	202211_AECOM_OMP	9.745	8.575	16.22	Good condition.
MW042	SW0237-NAA-MW01, MW42	18.320	13	16	12/05/2023	202305_AECOM_OMP	10.141	8.179	16.23	Good condition. Hydrasleeve reinstall depth 14 m.
MW043	SW0235-NAA-MW01, MW43	16.450	15	18	3/05/2021	202105_AECOM_OMP	5.562	10.888	16.80	Gatic flooded
MW043	SW0235-NAA-MW01, MW43	16.450	15	18	23/11/2021	202211_AECOM_OMP	9.355	7.095	17.85	
MW043	SW0235-NAA-MW01, MW43	16.450	15	18	25/05/2022	202205_AECOM_OMP	8.440	8.010	17.80	
MW043	SW0235-NAA-MW01, MW43	16.450	15	18	2/11/2022	202211_AECOM_OMP	8.650	7.800	17.85	Good condition. No Hydrasleeve present.
MW043	SW0235-NAA-MW01, MW43	16.450	15	18	12/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 15.5 m.
MW043	SW0235-NAA-MW01, MW43	16.450	15	18	15/05/2023	202305_AECOM_OMP	8.349	8.101	17.79	Good condition. Hydrasleeve reinstall depth 15.5 m.
MW044	SW0241-NAA-MW01, MW44	16.850	14.8	17.8	7/05/2021	202105_AECOM_OMP	10.058	6.792	17.78	
MW044	SW0241-NAA-MW01, MW44	16.850	14.8	17.8	7/11/2022	202211_AECOM_OMP	n/a	n/a	n/a	Unable to locate.
MW045	SW0241-NAA-MW02, MW45	16.740	15	18	7/05/2021	202105_AECOM_OMP	10.037	6.703	17.83	
MW045	SW0241-NAA-MW02, MW45	16.740	15	18	7/11/2022	202211_AECOM_OMP	n/a	n/a	n/a	Unable to locate.
MW045	SW0241-NAA-MW02, MW45	16.740	15	18	18/11/2022	202211_AECOM_OMP	8.599	8.141	17.83	Good condition.
MW045	SW0241-NAA-MW02, MW45	16.740	15	18	9/05/2023	202305_AECOM_OMP	9.170	7.570	17.83	Good condition. Hydrasleeve reinstall depth 16 m.
MW046	SW0241-NAA-MW03, MW46	16.710	15	18	4/05/2021	202105_AECOM_OMP	10.015	6.695	17.90	
MW046	SW0241-NAA-MW03, MW46	16.710	15	18	22/11/2021	202211_AECOM_OMP	9.925	6.785	17.92	
MW046	SW0241-NAA-MW03, MW46	16.710	15	18	24/05/2022	202205_AECOM_OMP	8.734	7.976	18.40	
MW046	SW0241-NAA-MW03, MW46	16.710	15	18	7/11/2022	202211_AECOM_OMP	8.570	8.140	17.93	Good condition
MW046	SW0241-NAA-MW03, MW46	16.710	15	18	9/05/2023	202305_AECOM_OMP	9.115	7.595	17.93	Good condition. Hydrasleeve reinstall depth 17 m.
MW047	SW0061-NAA-MW01, MW47	13.780	9	12	3/05/2021	202105_AECOM_OMP	7.474	6.306	11.43	
MW047	SW0061-NAA-MW01, MW47	13.780	9	12	23/11/2021	202211_AECOM_OMP	8.050	5.730	11.40	
MW047	SW0061-NAA-MW01, MW47	13.780	9	12	25/05/2022	202205_AECOM_OMP	6.800	6.980	11.65	
MW047	SW0061-NAA-MW01, MW47	13.780	9	12	2/11/2022	202211_AECOM_OMP	6.930	6.850	11.41	Good condition. No Hydrasleeve present.
MW047	SW0061-NAA-MW01, MW47	13.780	9	12	12/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 9 m.
MW047	SW0061-NAA-MW01, MW47	13.780	9	12	15/05/2023	202305_AECOM_OMP	8.337	5.443	11.41	Good condition. Hydrasleeve reinstall depth 9.5 m.
MW048	SW0061-NAA-MW02, MW48	17.620	10	13	3/05/2021	202105_AECOM_OMP	11.302	6.318	14.30	
MW048	SW0061-NAA-MW02, MW48	17.620	10	13	23/11/2021	202211_AECOM_OMP	11.890	5.730	14.31	
MW048	SW0061-NAA-MW02, MW48	17.620	10	13	25/05/2022	202205_AECOM_OMP	10.628	6.992	14.63	
MW048	SW0061-NAA-MW02, MW48	17.620	10	13	2/11/2022	202211_AECOM_OMP	10.745	6.875	14.30	Good condition.
MW048	SW0061-NAA-MW02, MW48	17.620	10	13	12/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 12 m.
MW048	SW0061-NAA-MW02, MW48	17.620	10	13	12/05/2023	202305_AECOM_OMP	11.935	5.685	14.30	Good condition. Hydrasleeve reinstall depth 12.0 m.
MW050	SW0061-BH102/2, MW50	10.200	unknown	unknown	3/05/2021	202105_AECOM_OMP	3.844	6.356	8.08	
MW050	SW0061-BH102/2, MW50	10.200	unknown	unknown	23/11/2021	202211_AECOM_OMP	4.371	5.829	8.01	
MW050	SW0061-BH102/2, MW50	10.200	unknown	unknown	25/05/2022	202205_AECOM_OMP	3.132	7.068	7.98	
MW050	SW0061-BH102/2, MW50	10.200	unknown	unknown	2/11/2022	202211_AECOM_OMP	3.304	6.896	7.97	Good condition. No Hydrasleeve present.
MW050	SW0061-BH102/2, MW50	10.200	unknown	unknown	12/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 5.5m.
MW050	SW0061-BH102/2, MW50	10.200	unknown	unknown	15/05/2023	202305_AECOM_OMP	4.290	5.910	7.97	Good condition. Hydrasleeve reinstall depth 6 m.
MW051	SW0061-BH102/5, MW51	10.300	2	5	3/05/2021	202105_AECOM_OMP	2.691	7.609	5.40	
MW051	SW0061-BH102/5, MW51	10.300	2	5	23/11/2021	202211_AECOM_OMP	2.836	7.464	5.18	
MW051	SW0061-BH102/5, MW51	10.300	2	5	25/05/2022	202205_AECOM_OMP	2.420	7.880	5.20	
MW051	SW0061-BH102/5, MW51	10.300	2	5	2/11/2022	202211_AECOM_OMP	2.500	7.800	5.14	No monument lid and j-cap. J-cap replaced. No Hydrasleeve present.
MW051	SW0061-BH102/5, MW51	10.300	2	5	12/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 2.5 m.
MW051	SW0061-BH102/5, MW51	10.300	2	5	15/05/2023	202305_AECOM_OMP	3.141	7.159	5.10	Good condition. Hydrasleeve reinstall depth 3 m.
MW052	SW0061-BH102/6, MW52	10.710	6	9	3/05/2021	202105_AECOM_OMP	4.390	6.320	9.49	
MW052	SW0061-BH102/6, MW52	10.710	6	9	23/11/2021	202211_AECOM_OMP	4.952	5.758	9.48	
MW052	SW0061-BH102/6, MW52	10.710	6	9	25/05/2022	202205_AECOM_OMP	3.679	7.031	9.64	
MW052	SW0061-BH102/6, MW52	10.710	6	9	2/11/2022	202211_AECOM_OMP	3.820	6.890	9.43	Good condition. No J-cap present. J-cap replaced. No Hydrasleeve present.
MW052	SW0061-BH102/6, MW52	10.710	6	9	12/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 7 m.
MW052	SW0061-BH102/6, MW52	10.710	6	9	15/05/2023	202305_AECOM_OMP	4.929	5.781	9.43	Good condition. Hydrasleeve reinstall depth 7.5 m.
MW053	SW0138-NAA-MW01, MW53	20.950	14	17	3/05/2021	202105_AECOM_OMP	14.075	6.875	16.51	
MW053	SW0138-NAA-MW01, MW53	20.950	14	17	24/11/2021	202211_AECOM_OMP	14.368	6.582	16.54	
MW053	SW0138-NAA-MW01, MW53	20.950	14	17	26/05/2022	202205_AECOM_OMP	11.751	9.199	16.57	Faulty j-cap
MW053	SW0138-NAA-MW01, MW53	20.950	14	17	10/11/2022	202211_AECOM_OMP	12.286	8.664	16.53	Good condition. No Hydrasleeve present.
MW053	SW0138-NAA-MW01, MW53	20.950	14	17	8/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 14.5 m.
MW053	SW0138-NAA-MW01, MW53	20.950	14	17	9/05/2023	202305_AECOM_OMP	13.921	7.029	16.54	Good condition. Hydrasleeve reinstall depth 14.5 m.
MW054	SW0138-NAA-MW02, MW54	24.310	15	18	4/05/2021	202105_AECOM_OMP	17.355	6.955	19.30	
MW054	SW0138-NAA-MW02, MW54	24.310	15	18	24/11/2021	202211_AECOM_OMP	17.676	6.634	19.08	
MW054	SW0138-NAA-MW02, MW54	24.310	15	18	24/05/2022	202205_AECOM_OMP	16.501	7.809	19.10	
MW054	SW0138-NAA-MW02, MW54	24.310	15	18	10/11/2022	202211_AECOM_OMP	16.652	7.658	19.09	Good condition.
MW054	SW0138-NAA-MW02, MW54	24.310	15	18	8/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 16 m.
MW054	SW0138-NAA-MW02, MW54	24.310	15	18	9/05/2023	202305_AECOM_OMP	17.252	7.058	18.39	Good condition. Hydrasleeve reinstall depth 17 m.
MW056	SW0138-BH8/17, MW56	19.390	12	16	7/05/2021	202105_AECOM_OMP	12.483	6.907	15.69	
MW056	SW0138-BH8/17, MW56	19.390	12	16	24/11/2021	202211_AECOM_OMP	12.746	6.644	15.63	
MW056	SW0138-BH8/17, MW56	19.390	12	16	25/05/2022	202205_AECOM_OMP	11.465	7.925	15.53	
MW056	SW0138-BH8/17, MW56	19.390	12	16	7/11/2022	202211_AECOM_OMP	11.661	7.729	15.66	Good condition. No Hydrasleeve present.
MW056	SW0138-BH8/17, MW56	19.390	12	16	8/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 12.5 m.
MW056	SW0138-BH8/17, MW56	19.390	12	16	9/05/2023	202305_AECOM_OMP	12.334	7.056	15.48	Good condition. Hydrasleeve reinstall depth 14 m.
MW057	SW0138-BH8/18, MW57	22.920	14	19	4/05/2021	202105_AECOM_OMP	15.930	6.990	21.10	

Table T3 - Groundwater Gauging and Observations

Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	Date	Monitoring Round	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit / Gauging Comment
MW057	SW0138-BH8/18, MW57	22.920	14	19	24/11/2021	202211_AECOM_OMP	16.274	6.646	20.99	
MW057	SW0138-BH8/18, MW57	22.920	14	19	31/05/2022	202205_AECOM_OMP	14.825	8.095	20.98	
MW057	SW0138-BH8/18, MW57	22.920	14	19	10/11/2022	202211_AECOM_OMP	15.210	7.710	21.31	Good condition. No Hydrasleeve present.
MW057	SW0138-BH8/18, MW57	22.920	14	19	8/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 18 m.
MW057	SW0138-BH8/18, MW57	22.920	14	19	9/05/2023	202305_AECOM_OMP	15.961	6.959	20.96	Good condition. Hydrasleeve reinstall depth 18 m.
MW058	SW0138-BH8/19, MW58	22.823	15	19	4/05/2021	202105_AECOM_OMP	15.914	6.909	20.29	
MW058	SW0138-BH8/19, MW58	22.823	15	19	24/11/2021	202211_AECOM_OMP	16.223	6.600	20.24	
MW058	SW0138-BH8/19, MW58	22.823	15	19	10/11/2022	202211_AECOM_OMP	15.275	7.548	20.44	Good condition. No Hydrasleeve present.
MW058	SW0138-BH8/19, MW58	22.823	15	19	8/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 17 m.
MW058	SW0138-BH8/19, MW58	22.823	15	19	9/05/2023	202305_AECOM_OMP	15.923	6.900	20.09	Good condition. Hydrasleeve reinstall depth 16 m.
MW059	SW0138-BH8/26, MW59	20.740	15	19	7/05/2021	202105_AECOM_OMP	13.412	7.328	n/m	
MW059	SW0138-BH8/26, MW59	20.740	15	19	29/11/2021	202211_AECOM_OMP	13.956	6.784	19.03	
MW059	SW0138-BH8/26, MW59	20.740	15	19	31/05/2022	202205_AECOM_OMP	12.705	8.035	n/m	
MW059	SW0138-BH8/26, MW59	20.740	15	19	7/11/2022	202211_AECOM_OMP	13.070	7.670	16.72	Good condition.
MW059	SW0138-BH8/26, MW59	20.740	15	19	8/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 15.5 m.
MW059	SW0138-BH8/26, MW59	20.740	15	19	9/05/2023	202305_AECOM_OMP	13.708	7.032	16.70	Good condition. Hydrasleeve reinstall depth 15.5 m.
MW060	SW0279-NAA-MW01, MW60	17.890	13	16	4/05/2021	202105_AECOM_OMP	11.196	6.694	n/m	
MW060	SW0279-NAA-MW01, MW60	17.890	13	16	24/11/2021	202211_AECOM_OMP	11.261	6.629	15.69	
MW060	SW0279-NAA-MW01, MW60	17.890	13	16	25/05/2022	202205_AECOM_OMP	9.921	7.969	15.64	
MW060	SW0279-NAA-MW01, MW60	17.890	13	16	7/11/2022	202211_AECOM_OMP	9.846	8.044	15.68	Good condition. No Hydrasleeve present.
MW060	SW0279-NAA-MW01, MW60	17.890	13	16	9/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 13.5 m.
MW060	SW0279-NAA-MW01, MW60	17.890	13	16	9/05/2023	202305_AECOM_OMP	10.574	7.316	15.67	Good condition. Hydrasleeve reinstall depth 13.5 m.
MW061	SW0279-NAA-MW02, MW61	18.390	11	14	4/05/2021	202105_AECOM_OMP	11.702	6.688	13.30	
MW061	SW0279-NAA-MW02, MW61	18.390	11	14	24/11/2021	202211_AECOM_OMP	11.571	6.819	13.14	
MW061	SW0279-NAA-MW02, MW61	18.390	11	14	25/05/2022	202205_AECOM_OMP	10.301	8.089	13.15	
MW061	SW0279-NAA-MW02, MW61	18.390	11	14	7/11/2022	202211_AECOM_OMP	10.349	8.041	13.14	Good condition. No Hydrasleeve present.
MW061	SW0279-NAA-MW02, MW61	18.390	11	14	9/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 11 m.
MW061	SW0279-NAA-MW02, MW61	18.390	11	14	9/05/2023	202305_AECOM_OMP	10.935	7.455	13.36	Good condition. Gatic box full of water, above TOC. Water drained prior to removing J-cap. Hydrasleeve reinstall depth 11.5 m.
MW062	SW0238-NAA-MW01, MW62	18.910	12	15	4/05/2021	202105_AECOM_OMP	12.002	6.908	13.60	
MW062	SW0238-NAA-MW01, MW62	18.910	12	15	22/11/2021	202211_AECOM_OMP	11.910	7.000	13.62	
MW062	SW0238-NAA-MW01, MW62	18.910	12	15	27/05/2022	202205_AECOM_OMP	10.803	8.107	13.82	
MW062	SW0238-NAA-MW01, MW62	18.910	12	15	3/11/2022	202211_AECOM_OMP	10.575	8.335	13.61	Good condition.
MW062	SW0238-NAA-MW01, MW62	18.910	12	15	9/05/2023	202305_AECOM_OMP	10.965	7.945	13.62	Good condition. Hydrasleeve reinstall depth 12.5 m.
MW063	SW0238-NAA-MW02, MW63	19.620	12	15	4/05/2021	202105_AECOM_OMP	12.697	6.923	15.09	
MW063	SW0238-NAA-MW02, MW63	19.620	12	15	22/11/2021	202211_AECOM_OMP	12.599	7.021	15.00	
MW063	SW0238-NAA-MW02, MW63	19.620	12	15	27/05/2022	202205_AECOM_OMP	11.639	7.981	15.00	
MW063	SW0238-NAA-MW02, MW63	19.620	12	15	3/11/2022	202211_AECOM_OMP	11.315	8.305	14.99	Bolts rusted into lid but unlocked. Gatic full of water below top of casing.
MW063	SW0238-NAA-MW02, MW63	19.620	12	15	9/05/2023	202305_AECOM_OMP	10.700	8.920	15.24	Good condition. Hydrasleeve reinstall depth 13 m.
MW064	SW0059-NAA-MW01, MW64	17.860	10	14	4/05/2021	202105_AECOM_OMP	11.126	6.734	14.60	
MW064	SW0059-NAA-MW01, MW64	17.860	10	14	22/11/2021	202211_AECOM_OMP	11.175	6.685	14.53	
MW064	SW0059-NAA-MW01, MW64	17.860	10	14	24/05/2022	202205_AECOM_OMP	9.680	8.180	14.88	
MW064	SW0059-NAA-MW01, MW64	17.860	10	14	2/11/2022	202211_AECOM_OMP	9.685	8.175	14.52	Good condition. Gatic full of water above top of casing. Drained prior to opening well cap.
MW064	SW0059-NAA-MW01, MW64	17.860	10	14	9/05/2023	202305_AECOM_OMP	10.560	7.300	14.77	Good condition. Hydrasleeve reinstall depth 13 m.
MW065	SW0059-NAA-MW02, MW65	17.950	10	13	4/05/2021	202105_AECOM_OMP	11.318	6.632	13.12	
MW065	SW0059-NAA-MW02, MW65	17.950	10	13	22/11/2021	202211_AECOM_OMP	11.375	6.575	13.15	
MW065	SW0059-NAA-MW02, MW65	17.950	10	13	24/05/2022	202205_AECOM_OMP	10.051	7.899	13.45	
MW065	SW0059-NAA-MW02, MW65	17.950	10	13	2/11/2022	202211_AECOM_OMP	9.890	8.060	13.15	Good condition.
MW065	SW0059-NAA-MW02, MW65	17.950	10	13	9/05/2023	202305_AECOM_OMP	10.552	7.398	13.14	Good condition. Hydrasleeve reinstall depth 12 m.
MW066	SW0059-NAA-MW03, MW66	18.030	11	15	4/05/2021	202105_AECOM_OMP	11.332	6.698	n/m	
MW066	SW0059-NAA-MW03, MW66	18.030	11	15	22/11/2021	202211_AECOM_OMP	11.403	6.627	14.96	
MW066	SW0059-NAA-MW03, MW66	18.030	11	15	24/05/2022	202205_AECOM_OMP	10.067	7.963	n/m	
MW066	SW0059-NAA-MW03, MW66	18.030	11	15	2/11/2022	202211_AECOM_OMP	9.925	8.105	14.96	Good condition.
MW066	SW0059-NAA-MW03, MW66	18.030	11	15	9/05/2023	202305_AECOM_OMP	10.542	7.488	14.97	Good condition. Hydrasleeve reinstall depth 12 m.
MW067	SW0246-NAA-MW01, MW67	18.600	12	15	5/05/2021	202105_AECOM_OMP	11.665	6.935	14.67	
MW067	SW0246-NAA-MW01, MW67	18.600	12	15	22/11/2021	202211_AECOM_OMP	11.648	6.952	14.66	
MW067	SW0246-NAA-MW01, MW67	18.600	12	15	26/05/2022	202205_AECOM_OMP	10.533	8.067	14.67	
MW067	SW0246-NAA-MW01, MW67	18.600	12	15	3/11/2022	202211_AECOM_OMP	10.295	8.305	15.95	Good condition.
MW067	SW0246-NAA-MW01, MW67	18.600	12	15	9/05/2023	202305_AECOM_OMP	10.750	7.850	14.67	Good condition. Hydrasleeve reinstall depth 13 m.
MW068	SW0246-NAA-MW02, MW68	19.050	12	15	4/05/2021	202105_AECOM_OMP	11.486	7.564	15.10	
MW068	SW0246-NAA-MW02, MW68	19.050	12	15	23/11/2021	202211_AECOM_OMP	11.692	7.358	15.03	
MW068	SW0246-NAA-MW02, MW68	19.050	12	15	26/05/2022	202205_AECOM_OMP	10.031	9.019	14.98	
MW068	SW0246-NAA-MW02, MW68	19.050	12	15	3/11/2022	202211_AECOM_OMP	9.765	9.285	15.01	Good condition
MW068	SW0246-NAA-MW02, MW68	19.050	12	15	9/05/2023	202305_AECOM_OMP	10.420	8.630	15.06	Good condition. Hydrasleeve reinstall depth 12.5 m.
MW069	SW0246-NAA-MW03, MW69	19.030	13	16	5/05/2021	202105_AECOM_OMP	11.762	7.268	n/m	
MW069	SW0246-NAA-MW03, MW69	19.030	13	16	23/11/2021	202211_AECOM_OMP	11.871	7.159	15.65	
MW069	SW0246-NAA-MW03, MW69	19.030	13	16	27/05/2022	202205_AECOM_OMP	10.479	8.551	15.76	
MW069	SW0246-NAA-MW03, MW69	19.030	13	16	3/11/2022	202211_AECOM_OMP	10.295	8.735	15.43	Good condition.
MW069	SW0246-NAA-MW03, MW69	19.030	13	16	11/05/2023	202305_AECOM_OMP	10.909	8.121	15.43	Good condition. Hydrasleeve reinstall depth 13.5 m.
MW070	SW0246-BH2/MW2, MW70	19.400	2	5	4/05/2021	202105_AECOM_OMP	4.045	15.355	5.30	
MW070	SW0246-BH2/MW2, MW70	19.400	2	5	22/11/2021	202211_AECOM_OMP	4.107	15.293	5.33	
MW070	SW0246-BH2/MW2, MW70	19.400	2	5	26/05/2022	202205_AECOM_OMP	3.301	16.099	5.34	
MW070	SW0246-BH2/MW2, MW70	19.400	2	5	3/11/2022	202211_AECOM_OMP	3.599	15.801	5.32	Good condition.
MW070	SW0246-BH2/MW2, MW70	19.400	2	5	9/05/2023	202305_AECOM_OMP	4.074	15.326	5.32	Good condition. Hydrasleeve reinstall depth 3 m.
MW071	SW0246-BH4/MW4, MW71	19.150	2	5	4/05/2021	202105_AECOM_OMP	3.730	15.420	5.09	
MW071	SW0246-BH4/MW4, MW71	19.150	2	5	22/11/2021	202211_AECOM_OMP	3.673	15.477	5.11	
MW071	SW0246-BH4/MW4, MW71	19.150	2	5	26/05/2022	202205_AECOM_OMP	2.882	16.268	5.15	
MW071	SW0246-BH4/MW4, MW71	19.150	2	5	3/11/2022	202211_AECOM_OMP	3.210	15.940	5.10	Good condition.
MW071	SW0246-BH4/MW4, MW71	19.150	2	5	9/05/2023	202305_AECOM_OMP	3.701	15.449	5.11	Good condition. Hydrasleeve reinstall depth 3 m.

Table T3 - Groundwater Gauging and Observations

Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	Date	Monitoring Round	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit / Gauging Comment
MW072	SW0003-BHFF19, MW72	7.020	unknown	unknown	5/05/2021	202105_AECOM_OMP	8.385	-1.365	13.16	
MW072	SW0003-BHFF19, MW72	7.020	unknown	unknown	24/11/2021	202211_AECOM_OMP	8.571	-1.551	13.12	
MW072	SW0003-BHFF19, MW72	7.020	unknown	unknown	24/05/2022	202205_AECOM_OMP	6.931	0.089	13.10	
MW072	SW0003-BHFF19, MW72	7.020	unknown	unknown	10/11/2022	202211_AECOM_OMP	7.074	-0.054	13.08	Good condition. No J-cap present, J-cap replaced. No Hydrasleeve present.
MW072	SW0003-BHFF19, MW72	7.020	unknown	unknown	15/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 10.5 m.
MW072	SW0003-BHFF19, MW72	7.020	unknown	unknown	15/05/2023	202305_AECOM_OMP	8.126	-1.106	13.05	Good condition. Hydrasleeve reinstall depth 11 m.
MW073	SW0003-MW02, MW73	15.331	10	13	5/05/2021	202105_AECOM_OMP	8.980	6.351	12.93	
MW073	SW0003-MW02, MW73	15.331	10	13	24/11/2021	202211_AECOM_OMP	8.802	6.529	11.69	
MW073	SW0003-MW02, MW73	15.331	10	13	24/05/2022	202205_AECOM_OMP	7.262	8.069	11.69	No j-cap
MW073	SW0003-MW02, MW73	15.331	10	13	10/11/2022	202211_AECOM_OMP	7.170	8.161	11.89	Good condition. No Hydrasleeve present.
MW073	SW0003-MW02, MW73	15.331	10	13	15/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 10.5 m.
MW073	SW0003-MW02, MW73	15.331	10	13	15/05/2023	202305_AECOM_OMP	7.888	7.443	11.70	Good condition. Hydrasleeve reinstall depth 10.5 m.
MW074	SW0003-MW03, MW74	15.630	10	14	5/05/2021	202105_AECOM_OMP	5.586	10.044	11.70	
MW074	SW0003-MW03, MW74	15.630	10	14	24/11/2021	202211_AECOM_OMP	9.248	6.382	12.90	
MW074	SW0003-MW03, MW74	15.630	10	14	24/05/2022	202205_AECOM_OMP	7.657	7.973	12.93	
MW074	SW0003-MW03, MW74	15.630	10	14	10/11/2022	202211_AECOM_OMP	7.390	8.240	13.13	Good condition. No Hydrasleeve present.
MW074	SW0003-MW03, MW74	15.630	10	14	15/05/2023	202305_AECOM_OMP	8.351	7.279	12.93	Good condition. Hydrasleeve reinstall depth 11 m.
MW075	MW75	18.097	12	15	4/05/2021	202105_AECOM_OMP	8.879	9.218	14.35	
MW075	MW75	18.097	12	15	25/11/2021	202211_AECOM_OMP	8.836	9.261	14.34	
MW075	MW75	18.097	12	15	30/05/2022	202205_AECOM_OMP	7.665	10.432	14.65	
MW075	MW75	18.097	12	15	3/11/2022	202211_AECOM_OMP	n/a	n/a	n/a	Unable to locate.
MW075	MW75	18.097	12	15	8/11/2022	202211_AECOM_OMP	7.430	10.667	14.34	Good condition.
MW075	MW75	18.097	12	15	8/05/2023	202305_AECOM_OMP	7.524	10.573	14.57	Good condition. Hydrasleeve reinstall depth 12.5 m.
MW076	MW76	19.540	15	18	3/05/2021	202105_AECOM_OMP	11.336	8.204	17.88	
MW076	MW76	19.540	15	18	25/11/2021	202211_AECOM_OMP	11.415	8.125	14.90	
MW076	MW76	19.540	15	18	31/05/2022	202205_AECOM_OMP	9.970	9.570	18.27	
MW076	MW76	19.540	15	18	10/11/2022	202211_AECOM_OMP	10.020	9.520	17.50	Good condition.
MW076	MW76	19.540	15	18	10/05/2023	202305_AECOM_OMP	10.585	8.955	18.26	Good condition. Hydrasleeve reinstall depth 16 m.
MW077	MW77	19.942	20	22	3/05/2021	202105_AECOM_OMP	11.504	8.438	21.92	
MW077	MW77	19.942	20	22	25/11/2021	202211_AECOM_OMP	11.529	8.413	21.78	
MW077	MW77	19.942	20	22	31/05/2022	202205_AECOM_OMP	10.109	9.833	22.22	
MW077	MW77	19.942	20	22	10/11/2022	202211_AECOM_OMP	10.032	9.910	21.79	Gatic damanged, lid cracked in half.
MW077	MW77	19.942	20	22	10/05/2023	202305_AECOM_OMP	10.596	9.346	21.78	Good condition. Hydrasleeve reinstall depth 20 m.
MW078	MW78	19.807	15	18	3/05/2021	202105_AECOM_OMP	11.588	8.219	17.46	Sediment on IP
MW078	MW78	19.807	15	18	25/11/2021	202211_AECOM_OMP	11.690	8.117	17.36	
MW078	MW78	19.807	15	18	31/05/2022	202205_AECOM_OMP	10.206	9.601	17.23	
MW078	MW78	19.807	15	18	8/11/2022	202211_AECOM_OMP	10.374	9.433	17.35	Good condition. No Hydrasleeve present.
MW078	MW78	19.807	15	18	10/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 15.5 m.
MW078	MW78	19.807	15	18	11/05/2023	202305_AECOM_OMP	10.981	8.826	17.62	Good condition. Hydrasleeve reinstall depth 15.5 m.
MW079	MW79	20.453	15	18	3/05/2021	202105_AECOM_OMP	12.426	8.027	17.86	
MW079	MW79	20.453	15	18	24/11/2021	202211_AECOM_OMP	12.556	7.897	17.90	
MW079	MW79	20.453	15	18	31/05/2022	202205_AECOM_OMP	11.025	9.428	18.22	
MW079	MW79	20.453	15	18	8/11/2022	202211_AECOM_OMP	11.232	9.221	17.89	Good condition.
MW079	MW79	20.453	15	18	10/05/2023	202305_AECOM_OMP	11.680	8.773	18.16	Good condition. Hydrasleeve reinstall depth 16 m.
MW080	MW80	22.779	21	24	3/05/2021	202105_AECOM_OMP	14.872	7.907	30.80	
MW080	MW80	22.779	21	24	24/11/2021	202211_AECOM_OMP	15.050	7.729	24.40	
MW080	MW80	22.779	21	24	8/11/2022	202211_AECOM_OMP	13.774	9.005	24.02	Good condition.
MW080	MW80	22.779	21	24	8/05/2023	202305_AECOM_OMP	14.380	8.399	24.42	Good condition. Hydrasleeve reinstall depth 22 m.
MW081	MW81	7.376	3	6	5/05/2021	202105_AECOM_OMP	0.114	7.262	5.51	
MW081	MW81	7.376	3	6	29/11/2021	202211_AECOM_OMP	0.386	6.990	5.51	
MW081	MW81	7.376	3	6	30/05/2022	202205_AECOM_OMP	0.030	7.346	5.50	
MW081	MW81	7.376	3	6	3/11/2022	202211_AECOM_OMP	0.000	7.376	5.62	Good condition. J-cap dislogded. Gatic full of water below top of casing.
MW081	MW81	7.376	3	6	9/05/2023	202305_AECOM_OMP	0.264	7.112	5.50	Good condition. Hydrasleeve reinstall depth 3.5 m.
MW082	MW82	8.781	3	6	4/05/2021	202105_AECOM_OMP	1.988	6.793	5.86	
MW082	MW82	8.781	3	6	25/11/2021	202211_AECOM_OMP	2.213	6.568	5.75	
MW082	MW82	8.781	3	6	30/05/2022	202205_AECOM_OMP	0.716	8.065	5.74	
MW082	MW82	8.781	3	6	3/11/2022	202211_AECOM_OMP	n/a	n/a	n/a	Unable to locate.
MW082	MW82	8.781	3	6	18/11/2022	202211_AECOM_OMP	1.341	7.440	5.73	Good condition.
MW082	MW82	8.781	3	6	9/05/2023	202305_AECOM_OMP	2.179	6.602	5.73	Good condition. Hydrasleeve reinstall depth 3.5 m.
MW086	MW86	10.387	3.6	6.6	3/05/2021	202105_AECOM_OMP	4.069	6.318	6.56	
MW086	MW86	10.387	3.6	6.6	22/11/2021	202211_AECOM_OMP	4.692	5.695	6.56	
MW086	MW86	10.387	3.6	6.6	8/11/2022	202211_AECOM_OMP	n/a	n/a	n/a	Unable to locate.
MW086	MW86	10.387	3.6	6.6	10/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Location under stockpile. Unable to locate.
MW091	MW91	8.345	4	7	3/05/2021	202105_AECOM_OMP	1.964	6.381	6.48	
MW091	MW91	8.345	4	7	25/11/2021	202211_AECOM_OMP	2.483	5.862	6.50	
MW091	MW91	8.345	4	7	31/05/2022	202205_AECOM_OMP	1.852	6.493	6.51	
MW091	MW91	8.345	4	7	7/11/2022	202211_AECOM_OMP	2.905	5.440	6.46	Good condition.
MW091	MW91	8.345	4	7	10/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Location found burried under approx. 40 cm of soil.
MW091	MW91	8.345	4	7	10/05/2023	202305_AECOM_OMP	3.765	4.580	6.47	Good condition. Hydrasleeve reinstall depth 4.5 m.
MW092	MW92	8.995	19	22	6/05/2021	202105_AECOM_OMP	4.767	4.228	21.60	
MW092	MW92	8.995	19	22	25/11/2021	202211_AECOM_OMP	5.915	3.080	21.59	
MW092	MW92	8.995	19	22	31/05/2022	202205_AECOM_OMP	4.435	4.560	21.55	
MW092	MW92	8.995	19	22	7/11/2022	202211_AECOM_OMP	4.540	4.455	22.57	Good condition.
MW092	MW92	8.995	19	22	10/05/2023	202305_AECOM_OMP	6.113	2.882	21.91	Good condition. Hydrasleeve reinstall depth 19.5 m.
MW095	MW95	7.519	5.5	8.5	6/05/2021	202105_AECOM_OMP	1.235	6.284	8.83	
MW095	MW95	7.519	5.5	8.5	29/11/2021	202211_AECOM_OMP	1.482	6.037	8.83	
MW097	MW97	6.465	4.3	7.3	5/05/2021	202105_AECOM_OMP	1.336	5.129	7.24	
MW097	MW97	6.465	4.3	7.3	29/11/2021	202211_AECOM_OMP	1.921	4.544	7.24	Gatic damaged.
MW097	MW97	6.465	4.3	7.3	31/05/2022	202205_AECOM_OMP	1.360	5.105	7.24	

Table T3 - Groundwater Gauging and Observations

Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	Date	Monitoring Round	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit / Gauging Comment
MW097	MW97	6.465	4.3	7.3	10/11/2022	202211_AECOM_OMP	n/a	n/a	n/a	Unable to locate.
MW098	MW98	5.511	5.8	8.8	5/05/2021	202105_AECOM_OMP	0.555	4.956	8.60	
MW098	MW98	5.511	5.8	8.8	29/11/2021	202211_AECOM_OMP	0.000	5.511	8.60	Gatic damaged.
MW098	MW98	5.511	5.8	8.8	30/05/2022	202205_AECOM_OMP	0.000	5.511	8.59	j-cap not secured
MW098	MW98	5.511	5.8	8.8	10/11/2022	202211_AECOM_OMP	n/a	n/a	n/a	Unable to locate.
MW106		22.738	28	31	24/11/2021	202211_AECOM_OMP	15.033	7.705	29.37	
MW106		22.738	28	31	31/05/2022	202205_AECOM_OMP	13.486	9.252	30.05	
MW106		22.738	28	31	8/11/2022	202211_AECOM_OMP	13.750	8.988	29.84	Good condition.
MW106		22.738	28	31	8/05/2023	202305_AECOM_OMP	14.369	8.369	29.98	Good condition. Hydrasleeve reinstall depth 28 m.
MW107D	MW107_D	22.973	27.5	30.5	23/11/2021	202111_AECOM_OMP	16.335	6.638	31.08	Good condition.
MW107D	MW107_D	22.973	27.5	30.5	24/05/2022	202205_AECOM_OMP	15.239	7.734	31.94	good condition
MW107D	MW107_D	22.973	27.5	30.5	10/11/2022	202211_AECOM_OMP	15.415	7.558	31.19	Good condition. Gatic full of water below top of casing.
MW107D	MW107_D	22.973	27.5	30.5	8/05/2023	202305_AECOM_OMP	13.650	9.323	n/m	Good condition. Total depth not measured (greater than interface probe length). Hydrasleeve reinstall depth 28 m.
MW107I	MW107_I	22.860	21.8	24.8	23/11/2021	202111_AECOM_OMP	16.218	6.642	25.48	good condition
MW107I	MW107_I	22.860	21.8	24.8	24/05/2022	202205_AECOM_OMP	15.124	7.736	26.12	Good condition.
MW107I	MW107_I	22.860	21.8	24.8	10/11/2022	202211_AECOM_OMP	15.291	7.569	25.50	Good condition.
MW107I	MW107_I	22.860	21.8	24.8	8/05/2023	202305_AECOM_OMP	n/a	n/a	n/a	Hydrasleeve install visit. Hydrasleeve install depth 22 m.
MW107I	MW107_I	22.860	21.8	24.8	9/05/2023	202305_AECOM_OMP	15.893	6.967	25.92	Good condition. Hydrasleeve reinstall depth 22 m.
MW108		21.316	25	28	23/11/2021	202211_AECOM_OMP	14.716	6.600	28.51	
MW108		21.316	25	28	26/05/2022	202205_AECOM_OMP	13.460	7.856	29.20	
MW108		21.316	25	28	11/11/2022	202211_AECOM_OMP	13.620	7.696	28.92	Good condition.
MW108		21.316	25	28	8/05/2023	202305_AECOM_OMP	14.300	7.016	28.96	Good condition. Hydrasleeve reinstall depth 26 m.
MW109		6.205	10	13	22/11/2021	202211_AECOM_OMP	0.722	5.483	13.59	
MW109		6.205	10	13	27/05/2022	202205_AECOM_OMP	0.440	5.765	13.53	
MW109		6.205	10	13	8/11/2022	202211_AECOM_OMP	0.738	5.467	13.35	Good condition
MW109		6.205	10	13	8/05/2023	202305_AECOM_OMP	0.920	5.285	13.54	Good condition. Hydrasleeve reinstall depth 11.5 m.
MW110		7.644	12	15	22/11/2021	202211_AECOM_OMP	1.701	5.943	14.45	
MW110		7.644	12	15	27/05/2022	202205_AECOM_OMP	0.506	7.138	14.35	
MW110		7.644	12	15	8/11/2022	202211_AECOM_OMP	0.789	6.855	n/m	Good condition.
MW110		7.644	12	15	8/05/2023	202305_AECOM_OMP	1.510	6.134	14.66	Good condition. Hydrasleeve reinstall depth 12.5 m.
MW111		9.422	16	19	25/11/2021	202211_AECOM_OMP	3.545	5.877	17.31	
MW111		9.422	16	19	26/05/2022	202205_AECOM_OMP	2.642	6.780	17.28	
MW111		9.422	16	19	11/11/2022	202211_AECOM_OMP	2.856	6.566	17.30	Good condition.
MW111		9.422	16	19	11/05/2023	202305_AECOM_OMP	3.578	5.844	17.31	Good condition. Hydrasleeve reinstall depth 17 m.
MW112		6.791	12	15	25/11/2021	202211_AECOM_OMP	1.094	5.697	15.49	
MW112		6.791	12	15	26/05/2022	202205_AECOM_OMP	0.269	6.522	15.43	
MW112		6.791	12	15	11/11/2022	202211_AECOM_OMP	0.726	6.065	15.49	Good condition.
MW112		6.791	12	15	11/05/2023	202305_AECOM_OMP	1.651	5.140	15.68	Good condition. Hydrasleeve reinstall depth 13.5 m.
MW113		9.443	16	19	29/11/2021	202211_AECOM_OMP	3.589	5.854	19.05	
MW113		9.443	16	19	26/05/2022	202205_AECOM_OMP	2.941	6.502	19.68	
MW113		9.443	16	19	11/11/2022	202211_AECOM_OMP	3.441	6.002	19.68	Good condition.
MW113		9.443	16	19	11/05/2023	202305_AECOM_OMP	4.484	4.959	19.68	Good condition. Hydrasleeve reinstall depth 17.5 m.
MW114		9.698	16	19	29/11/2021	202211_AECOM_OMP	5.128	4.570	20.03	
MW114		9.698	16	19	26/05/2022	202205_AECOM_OMP	4.282	5.416	19.68	
MW114		9.698	16	19	11/11/2022	202211_AECOM_OMP	4.651	5.047	19.76	Good condition.
MW114		9.698	16	19	11/05/2023	202305_AECOM_OMP	5.668	4.030	19.43	Good condition. Hydrasleeve reinstall depth 17.5 m.
MW117	MW11	19.297	unknown	unknown	25/11/2021	202211_AECOM_OMP	1.117	18.180	6.01	Well cap missing
MW118	MW05	19.576	unknown	unknown	25/11/2021	202211_AECOM_OMP	11.616	7.960	17.43	Well cap missing
MW119	MW02	19.355	unknown	unknown	25/11/2021	202211_AECOM_OMP	0.265	19.090	6.08	Well cap missing
MW120		unknown	unknown	unknown	4/05/2021	202105_AECOM_OMP	1.365	n/a	16.81	
MW120		unknown	unknown	unknown	14/12/2021	202211_AECOM_OMP	1.471	n/a	15.50	
MW121		unknown	unknown	unknown	4/05/2021	202105_AECOM_OMP	1.695	n/a	17.31	
MW121		unknown	unknown	unknown	14/12/2021	202211_AECOM_OMP	1.465	n/a	15.75	
MW143		6.631	2	5	10/05/2023	202305_AECOM_OMP	3.028	3.603	5.02	Good condition. Hydrasleeve reinstall depth 3.5 m.
MW143		6.631	2	5	9/06/2023	202305_AECOM_OMP	n/a	n/a	n/a	Resampling visit.
MW143		6.631	2	5	9/06/2023	202305_AECOM_OMP	2.998	3.633	5.01	Good condition. Hydrasleeve reinstall depth 3.7m
MW144		5.300	3	6	10/05/2023	202305_AECOM_OMP	1.327	3.973	6.17	Good condition. Gatic box full of water, above TOC. Water drained prior to removing J-cap. Hydrasleeve reinstall depth 4.5 m.
MW144		5.300	3	6	9/06/2023	202305_AECOM_OMP	n/a	n/a	n/a	Resampling visit.
MW144		5.300	3	6	9/06/2023	202305_AECOM_OMP	1.457	3.843	6.00	Good condition. Gatic box full of water, below TOC. Hydrasleeve reinstall depth 4.5m

Notes

mbTOC	meters below Top of Casing
mAHD	meters Australian Height Datum
n/a	Not applicable
n/m	Not measured

Table T4 - Groundwater Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																													
MW001	03 Jul 2017	0902_MW01_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	*<0.01*	*<0.01*	0.11	**0.11**	0.17	0.04	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	08 Nov 2019	0902_MW001_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*<0.01*	0.10	**0.10**	0.16	0.03	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	14 May 2020	0902_MW001_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*<0.01*	0.13	**0.13**	0.18	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	12 Nov 2020	0902_MW001_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.01*	0.11	**0.11**	0.14	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	12 Nov 2020	0902_QC106_201112	Field_D	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.01*	0.09	**0.09**	0.13	0.02	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	06 May 2021	0902_MW001_210506	Normal	ES2117089	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*<0.01*	0.12	**0.12**	0.19	0.04	0.03	*<0.02*	*<0.02*	*<0.10*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	29 Nov 2021	0902_MW001_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*<0.01*	0.12	**0.12**	0.17	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	29 Nov 2021	0902_QC112_211129	Field_D	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*<0.01*	0.14	**0.14**	0.21	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	26 May 2022	0902_MW001_220526	Normal	ES2218422	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*<0.01*	0.12	**0.12**	0.14	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	11 Nov 2022	0902_MW001_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*<0.01*	0.10	**0.10**	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW001	11 May 2023	0902_MW001_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*<0.01*	0.10	**0.10**	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	03 Jul 2017	0902_MW02_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	08 Nov 2019	0902_MW002_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	14 May 2020	0902_MW002_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	14 May 2020	0902_QC205_200514	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*<0.02*	*<0.01*	*<0.01*	-	*<0.01*	*<0.01*	*<0.01*	*<0.01*	0.16	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW002	12 Nov 2020	0902_MW002_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	12 Nov 2020	0902_QC203_201112	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.02*	*<0.01*	*<0.01*	-	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW002	06 May 2021	0902_MW002_210506	Normal	ES2117089	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.10*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	29 Nov 2021	0902_MW002_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	29 Nov 2021	0902_QC212_211129	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*	
MW002	26 May 2022	0902_MW002_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	11 Nov 2022	0902_MW002_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW002	11 May 2023	0902_MW002_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW004	07 Jul 2017	0902_MW04_070717	Normal	ES1716793	NSW_0902_PFAS	Early Works Program	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW004	25 Nov 2021	0902_MW004_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW004	26 May 2022	0902_MW004_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW004	11 Nov 2022	0902_MW004_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW004	11 May 2023	0902_MW004_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	07 Jul 2017	0902_MW05_070717	Normal	ES1716793	NSW_0902_PFAS	Early Works Program	0.18	*2.37*	6.76	**9.13**	11.5	0.62	0.53	0.17	*<0.02*	0.2	0.10	0.45	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	08 Nov 2019	0902_MW005_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.05*	*0.18*	0.58	**0.76**	0.87	0.06	0.05	*<0.05*	*<0.05*	*<0.2*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW005	13 May 2020	0902_MW005_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.12*	0.38	**0.50**	0.56	0.03	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	14 May 2020	0902_QC203_200514	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.055*	0.18	**0.235**	-	0.014	0.013	*<0.01*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*	*<0.02*
MW005	12 Nov 2020	0902_MW005_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*0.13*	0.44	**0.57**	0.62	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	12 Nov 2020	0902_QC103_201112	Field_D	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*0.13*	0.33	**0.46**	0.53	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	06 May 2021	0902_MW005_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*0.04*	0.10	**0.14**	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	25 Nov 2021	0902_MW005_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.04*	0.08	**0.12**	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	26 May 2022	0902_MW005_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*0.10*	0.04	**0.14**	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	11 Nov 2022	0902_MW005_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.03*	0.05	**0.08**	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW005	11 May 2023	0902_MW005_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*0.03*	0.03	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW006	07 Jul 2017	0902_MW06_070717	Normal	ES1716793	NSW_0902_PFAS	Early Works Program	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW006	08 Nov 2019	0902_MW006_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW006	08 Nov 2019	0902_QC102_191108	Field_D	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW006	14 May 2020	0902_MW006_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.08*	0.02	**0.10**	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW006	14 May 2020	0902_QC204_200514	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.041*	0.017	**0.058**	-	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*	*<0.02*
MW006	12 Nov 2020	0902_MW006_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*0.02*	0.02	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	10 Jul 2017	0902_MW07_100717	Normal	ES1717019	NSW_0902_PFAS	Early Works Program	*<0.01*	*<0.01*	0.16	**0.16**	0.23	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	13 Nov 2019	0902-MW007_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*<0.01*	0.04	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	11 May 2020	0902_MW007_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*<0.01*	0.08	**0.08**	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	10 Nov 2020	0902_MW007_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	03 May 2021	0902_MW007_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*<0.01*	0.09	**0.09**	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	03 May 2021	0902_QC100_210503	Field_D	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*<0.01*	0.10	**0.10**	0.12	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW007	23 Nov 2021	0902_MW007_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	*

Table T4 - Groundwater Historical Analytical Results

							Nutrients																Inorganics																	
							Ammonia	Ammonia as N	Ammonia as N (filtered)	Nitrate (as N)	Nitrate (as N) (filtered)	Nitrite (as N)	Nitrite (as N) (filtered)	Nitrite + Nitrate as N	Nitrogen (Total Oxidised)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Reactive Phosphorus as P	Reactive Phosphorus as P (Orthophosphate as P)	Total Phosphorus as P (Organic Phosphate as P)	Hardness (filtered)	Carbonate Alkalinity (as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Anions Total	Cations Total	Bromine	Bromine (filtered)	Chloride	Fluoride	Ionic Balance	Sulphate as SO4 - Turbidimetric (filtered)	Sulphate
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	µg/L	µg/L	mg/L	mg/L	%	mg/L	mg/L
LOR							0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.2	100	0.1	0.01	0.01	0.005	0.01		1	1	1	1	1	0.01	0.01	10	10	1	0.1	0.01	1	1
PFAS NEMP 2020 Drinking Water																																					
PFAS NEMP 2020 Freshwater 99%																																					
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																																	
MW001	03 Jul 2017	0902_MW01_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	119	-	<1	119	11.9	10.7	-	800	314	0.4	5.24	32	-
MW001	08 Nov 2019	0902_MW001_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	-	0.04	-	<0.01	-	<0.01	-	<0.01	-	-	-	1.57	-	-	-	-	<1	131	-	<1	131	12.3	11.2	-	700	320	-	4.86	33	-
MW001	14 May 2020	0902_MW001_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	0.05	-	<0.01	-	<0.01	-	<0.01	-	-	-	1.18	-	-	-	-	<1	175	-	<1	175	14.5	13.0	-	800	362	-	5.57	38	-
MW001	12 Nov 2020	0902_MW001_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	<0.01	-	<0.01	-	<0.01	-	<0.01	-	-	-	0.04	-	-	-	-	<1	236	-	<1	236	14.3	13.3	-	700	312	0.5	3.41	36	-
MW001	12 Nov 2020	0902_QC106_201112	Field_D	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW001	06 May 2021	0902_MW001_210506	Normal	ES2117089	NSW_0902_PFASOMP	202105_AECOM_OMP	-	<0.01	-	0.10	-	<0.01	-	0.10	-	300	0.2	-	-	-	0.05	-	-	-	-	-	-	-	-	-	1,000	-	-	-	-	-	-
MW001	29 Nov 2021	0902_MW001_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	0.04	-	0.08	-	<0.01	-	0.08	-	-	-	-	-	-	0.17	-	<1	277	-	<1	277	13.9	12.9	-	600	257	-	3.82	54	-
MW001	29 Nov 2021	0902_QC112_211129	Field_D	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW001	26 May 2022	0902_MW001_220526	Normal	ES2218422	NSW_0902_PFASOMP	202205_AECOM_OMP	-	<0.01	-	<0.01	-	<0.01	-	<0.01	-	-	-	-	-	-	0.03	-	-	-	-	-	-	-	-	-	700	-	-	-	-	-
MW001	11 Nov 2022	0902_MW001_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	<0.01	-	0.01	-	<0.01	-	0.01	-	200	0.2	-	-	-	0.13	-	<1	177	-	<1	177	11.4	10.5	600	-	239	-	3.88	52	-
MW001	11 May 2023	0902_MW001_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	03 Jul 2017	0902_MW02_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	482	-	<1	482	36.4	34.6	-	2,600	900	0.8	2.46	64	-
MW002	08 Nov 2019	0902_MW002_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	14 May 2020	0902_MW002_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	14 May 2020	0902_QC205_200514	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	12 Nov 2020	0902_MW002_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	12 Nov 2020	0902_QC203_201112	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	06 May 2021	0902_MW002_210506	Normal	ES2117089	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	29 Nov 2021	0902_MW002_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	29 Nov 2021	0902_QC212_211129	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	26 May 2022	0902_MW002_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	11 Nov 2022	0902_MW002_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW002	11 May 2023	0902_MW002_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW004	07 Jul 2017	0902_MW04_070717	Normal	ES1716793	NSW_0902_PFAS	Early Works Program	-	0.09	-	0.33	-	<0.01	-	0.33	-	-	-	-	<0.01	-	-	-	<1	276	-	<1	276	32.5	30.8	-	2,000	932	0.2	2.75	33	-
MW004	25 Nov 2021	0902_MW004_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW004	26 May 2022	0902_MW004_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW004	11 Nov 2022	0902_MW004_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW004	11 May 2023	0902_MW004_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW005	07 Jul 2017	0902_MW05_070717	Normal	ES1716793	NSW_0902_PFAS	Early Works Program	-	0.04	-	9.37	-	0.01	-	9.38	-	-	-	-	0.06	-	-	-	<1	719	-	<1	719	224	202	-	14,900	6,680	0.9	5.05	996	-
MW005	08 Nov 2019	0902_MW005_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW005	13 May 2020	0902_MW005_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW005	14 May 2020	0902_QC203_200514	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW005	12 Nov 2020	0902_MW005_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW005	12 Nov 2020	0902_QC103_201112	Field_D	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW005	06 May 2021	0902_MW005_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	<0.01	-	0.16	-	<0.01	-	0.16	-	400	0.2	-	-	-	0.13	-	-	-	-	-	-	-	-	-	9,000	-	-	-	-	-	-
MW005	25 Nov 2021	0902_MW005_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW005	26 May 2022	0902_MW005_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW005	11 Nov 2022	0902_MW005_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW005	11 May 2023	0902_MW005_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW006	07 Jul 2017	0902_MW06_070717	Normal	ES1716793	NSW_0902_PFAS	Early Works Program	-	0.02	-	0.02	-	<0.01	-	0.02	-	-	-	-	<0.01	-	-	-	<1	610	-	<1	610	34.7	33.3	-	1,900	764	1.2	2.09	48	-
MW006	08 Nov 2019	0902_MW006_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW006	08 Nov 2019	0902_QC102_191108	Field_D	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW006	14 May 2020	0902_MW006_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW006	14 May 2020	0902_QC204_200514	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW006	12 Nov 2020	0902_MW006_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW007	10 Jul 2017	0902_MW07_100717	Normal	ES1717019	NSW_0902_PFAS	Early Works Program	-	<0.01	-	8.84	-	0.02	-	8.86	-	-	-	-	0.07	-	-	-	<1	596	-	<1	596	54.1	55.7	-	4,000	1,410	1.3	1.45	115	-
MW007	13 Nov 2019	0902-MW007_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	607	-	<1	607	54.9	60.6	-	-	1,410	-	4.91	145	-
MW007	11 May 2020	0902_MW007_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	702	-	<1	702	60.7	59.4	-	-	1,540	-	1.08	157	-
MW007	10 Nov 2020	0902_MW007_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	686	-	<1	686	54.6	56.4	-	-	1,350	1.2	1.69	134	-
MW007	03 May 2021	0902_MW007_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW007	03 May 2021	0902_QC100_210503	Field_D	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW007	23 Nov 2021	0902_MW007_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW007	25 May 2022	0902_MW007_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW007	02 Nov 2022	0902_MW007_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW007	15 May 2023	0902_MW007_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	30 Jun 2017	0902_MW08_300617	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	150	-	<1	150	29.9	31.2	-	2,400	951	0.5	2.06	6	-
MW008	14 Nov 2019	0902_MW008_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	11 May 2020	0902_MW008_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	10 Nov 2020	0902_MW008_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	10 Nov 2020	0902_QC200_201110	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	03 May 2021	0902_MW008_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	23 Nov 2021	0902_MW008_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	23 Nov 2021	0902_QC102_211123	Field_D	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	25 May 2022	0902_MW008_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	25 May 2022	0902_QC201_220525	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	02 Nov 2022	0902_MW008_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T4 - Groundwater Historical Analytical Results

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Table T4 - Groundwater Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																												
MW008	02 Nov 2022	0902_QC100_221102	Field_D	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.01	0.39	0.40	**0.79**	1.10	0.11	0.10	<0.02	<0.02	<0.1	0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	02 Nov 2022	0902_QC200_221102	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.01	0.34	0.35	**0.69**	1.1	0.09	0.10	<0.01	<0.02	0.02	<0.02	0.06	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.13	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW008	12 May 2023	0902_MW008_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	0.08	0.20	**0.28**	0.47	0.09	0.05	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	30 Jun 2017	0902_MW09_300617	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	<0.01	0.06	0.10	**0.16**	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	03 May 2021	0902_MW009_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.01	0.15	0.03	**0.18**	0.18	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	23 Nov 2021	0902_MW009_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	0.06	0.02	**0.08**	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	25 May 2022	0902_MW009_220525	Normal	ES2218422	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	0.12	0.03	**0.15**	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	02 Nov 2022	0902_MW009_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.01	0.12	0.04	**0.16**	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	12 May 2023	0902_MW009_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	0.06	0.02	**0.08**	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW010	30 Jun 2017	0902_MW10_300617	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	0.02	0.16	0.56	**0.72**	0.96	0.07	0.05	<0.02	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW010	14 Nov 2019	0902_MW010_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	0.03	0.88	0.41	**1.29**	1.54	0.05	0.05	0.02	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW010	11 May 2020	0902_MW010_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	0.21	7.62	3.41	**11.0**	13.6	0.49	0.44	0.15	<0.02	<0.1	0.19	1.04	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW010	10 Nov 2020	0902_MW010_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.01	0.33	0.20	**0.53**	0.64	0.03	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW010	03 May 2021	0902_MW010_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.19	4.67	3.47	**8.14**	11.2	0.54	0.54	0.12	<0.02	0.1	0.22	1.19	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW010	23 Nov 2021	0902_MW010_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	0.16	0.16	**0.32**	0.45	0.04	0.02	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW010	25 May 2022	0902_MW010_220525	Normal	ES2218422	NSW_0902_PFASOMP	202205_AECOM_OMP	0.32	5.60	4.70	**10.3**	14.5	0.66	0.69	0.16	<0.02	0.1	0.31	1.81	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW010	02 Nov 2022	0902_MW010_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	0.23	3.01	4.20	**7.21**	10.3	0.49	0.63	0.11	<0.02	<0.1	0.19	1.34	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW010	12 May 2023	0902_MW010_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.01	0.12	0.13	**0.25**	0.31	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	03 Jul 2017	0902_MW12_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	0.22	0.73	5.91	**6.64**	12.2	2.14	1.21	0.10	<0.02	<0.1	0.42	1.34	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	03 Jul 2017	0902_QC103_030717	Field_D	ES1716548	NSW_0902_PFAS	Early Works Program	0.22	0.73	5.99	**6.72**	12.4	2.14	1.25	0.11	<0.02	<0.1	0.42	1.36	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	08 Nov 2019	0902_MW012_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	**0.99**	13.8	21.6	**35.4**	46.6	1.87	2.80	0.84	<0.02	0.3	0.64	3.10	0.52	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.12	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	14 May 2020	0902_MW012_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	**1.01**	7.98	23.0	**31.0**	47.1	3.20	4.11	1.03	0.02	0.5	0.94	4.53	0.71	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	12 Nov 2020	0902_MW012_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	**0.78**	5.65	21.4	**27.0**	38.2	2.54	2.73	0.63	<0.02	0.3	0.72	2.96	0.46	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	12 Nov 2020	0902_QC206_201112	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP	0.44	2.7	10	**12.7**	-	1.7	1.5	0.21	<0.01	0.31	0.48	2	0.29	0.017	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	0.015	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW012	06 May 2021	0902_MW012_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.34	1.47	9.97	**11.4**	17.7	1.43	1.63	0.21	<0.02	<0.1	0.41	1.97	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	06 May 2021	0902_QC103_210506	Field_D	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.31	1.63	8.90	**10.5**	16.9	1.54	1.72	0.22	<0.02	0.3	0.38	1.65	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	29 Nov 2021	0902_MW012_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.12	0.98	3.42	**4.40**	6.71	0.63	0.54	0.08	<0.02	<0.1	0.13	0.72	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	27 May 2022	0902_MW012_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.06	0.41	2.13	**2.54**	3.88	0.40	0.42	0.04	<0.02	<0.1	0.08	0.30	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	18 Nov 2022	0902_MW012_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	0.02	0.19	1.33	**1.52**	2.30	0.26	0.28	<0.02	<0.02	<0.1	0.04	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	11 May 2023	0902_MW012_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.03	0.24	1.53	**1.77**	2.79	0.41	0.28	0.02	<0.02	<0.1	0.05	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW013	03 Jul 2017	0902_MW13_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	<0.01	0.08	1.23	**1.31**	1.97	0.38	0.22	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW013	08 Nov 2019	0902_MW013_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.01	0.30	34.9	**35.2**	43.3	2.36	4.48	0.51	<0.02	0.1	0.12	0.56	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW013	14 May 2020	0902_MW013_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.08	0.34	25.0	**25.3**	32.0	2.11	3.11	0.28	<0.02	0.4	0.14	0.52	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW013	12 Nov 2020	0902_MW013_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.12	0.55	17.8	**18.4**	22.5	1.37	1.58	0.19	<0.02	0.3	0.12	0.42	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW013	06 May 2021	0902_MW013_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.03	0.11	5.64	**5.75**	7.33	0.55	0.65	0.05	<0.02	<0.1	0.05	0.23	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW013	06 May 2021	0902_QC203_210506	Interlab_D	RN1314562	NSW_0902_PFASOMP	202105_AECOM_OMP	0.015	0.13	4.7	**4.83**	-	0.52	0.53	0.02	<0.01	0.12	0.037	0.13	0.014	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW013	29 Nov 2021	0902_MW013_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.01	0.08	1.85	**1.93**	2.74	0.35	0.28	<0.02	<0.02	<0.1	0.02	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW013	27 May 2022	0902_MW013_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.02	0.10	1.92	**2.02**	3.00	0.34	0.27	0.02	<0.02	<0.1	0.05	0.26	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW013	18 Nov 2022	0902_MW013_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	0.02	0.08	1.78	**1.86**	2.84	0.31	0.32	<0.02	<0.02	<0.1	0.05	0.28	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW013	11 May 2023	0902_MW013_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.03	0.10	2.15	**2.25**	3.59	0.47	0.33	0.02	<0.02	0.1	0.06	0.31	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW014	03 Jul 2017	0902_MW14_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	<0.01	0.04	0.90	**0.94**	1.84	0.44	0.26	<0.02	<0.02	<0.1	0.04	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW014	08 Nov 2019	0902_MW014_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	0.02	0.24	0.14	**0.38**	0.49	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW014	14 May 2020	0902_MW014_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.01	<0.01	1.11	**1.11**	1.96	0.32	0.24	<0.02	<0.02	<0.1	0.04	0.24	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW014	12 Nov 2020	0902_MW014_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.01	0.07	1.08	**1.15**	1.87	0.30	0.20	<0.02	<0.02	<0.1	0.04	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW014	06 May 2021	0902_MW014_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.01	0.07	1.38	**1.45**	2.49	0.34	0.32	0.02	<0.02	<0.1	0.05	0.29	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW014	29 Nov 2021	0902_MW014_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.01	0.06	1.25	**1.31**	2.33	0.37	0.28	0.02	<0.02	<0.1	0.04	0.28	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW014	27 May 2022	0902_MW014_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.02	0.10	1.56	**1.66**	2.92	0.39	0.39	0.04	<0.02	<0.1	0.07	0.32	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW014	18 Nov 2022	0902_MW014_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	0.01	0.10	1.27	**1.37**	2.32	0.29	0.29	<0.02	<0.02	<0.1	0.05	0.29	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW014	11 May 2023	0902_MW014_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.03	0.14	1.59	**1.73**	2.98	0.42	0.32	0.04	<0.02	<0.1	0.07	0.34	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	03 Jul 2017	0902_MW15_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	0.20	3.92	5.07	**8.99**	12.0	0.95	0.73	0.24	<0.02	<0.1	0.20	0.64	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	08 Nov 2019	0902_MW015_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	0.18	3.73	4.38	**8.11**	10.7	0.55	0.68	0.25	<0.02	<0.1	0.14	0.70	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	14 May 2020	0902_MW015_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.06	<0.01	1.10	**1.10**	1.72	0.15	0.13	0.06	<0.02	<0.1	0.03	0.17	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	12 Nov 2020	0902_MW015_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.09	2.02	2.09	**4.11**	5.05	0.24	0.21	0.09	<0.02	<0.1	0.05	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	06 May 2021	0902_MW015_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.06	0.86	1.33	**2.19**	2.89	0.15	0.17	0.06	<0.02	<0.1	0.03	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	29 Nov 2021	0902_MW015_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.07	1.79	2.05	**3.84**	4.96	0.28	0.28	0.10	<0.02	<0.1	0.04	0.31	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	27 May 2022	0902_MW015_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.13	3.02	3.27	**6.29**	8.03	0.41	0.43	0.19	<0.02	<0.1	0.09	0.43	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	18 Nov 2022	0902_MW015_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	0.12	3.63	3.40	**7.03**	8.94	0.42	0.50	0.13	<0.02	0.1	0.09	0.50	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	11 May 2023	0902_MW015_23011	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.17	4.34	3.94	**8.28**	10.7	0.63	0.56	0.22	<0.02	0.1	0.12	0.53	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW016	07 Jul 2017	0902_MW16_070717	Normal	ES1716793	NSW_0902_PFAS	Early Works Program	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.

Table T4 - Groundwater Historical Analytical Results

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Table T4 - Groundwater Historical Analytical Results

																								Metals										
													TDS	TDS (filtered)	Total Suspended Solids	Aluminium	Aluminium (filtered)	Arsenic	Arsenic (filtered)	Barium (filtered)	Beryllium (filtered)	Boron (filtered)	Cadmium (filtered)	Calcium (filtered)	Chromium (III+VI) (filtered)	Copper (filtered)	Iron	Iron (filtered)	Lead (filtered)	Magnesium (filtered)	Manganese	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Potassium (filtered)	Sodium (filtered)	Vanadium (filtered)	Zinc (filtered)
													mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR													5	5	5	0.01	0.01	0.001	0.001	0.001	0.0005	0.02	0.0001	0.5	0.001	0.001	0.01	0.01	0.001	0.5	0.001	0.001	0.00005	0.001	0.5	0.5	0.001	0.001
PFAS NEMP 2020 Drinking Water																																			
PFAS NEMP 2020 Freshwater 99%																																			
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																													
MW008	02 Nov 2022	0902_QC100_221102	Field_D	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	02 Nov 2022	0902_QC200_221102	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW008	12 May 2023	0902_MW008_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW009	30 Jun 2017	0902_MW09_300617	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	6,180	-	-	0.03	-	<0.001	-	-	-	0.0002	160	<0.001	0.007	-	0.10	<0.001	327	-	0.093	<0.0001	0.045	2	1,390	-	0.223
MW009	03 May 2021	0902_MW009_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	0.14	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	0.240	-	-	-	-	-	-	-	-	-	-
MW009	23 Nov 2021	0902_MW009_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW009	25 May 2022	0902_MW009_220525	Normal	ES2218422	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	2.76	-	-	-	-	-	-	-	-	-
MW009	02 Nov 2022	0902_MW009_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	<0.01	-	-	-	-	-	-	-	87	-	-	<0.05	-	-	154	2.40	-	-	-	3	897	-	-	-	-	-
MW009	12 May 2023	0902_MW009_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW010	30 Jun 2017	0902_MW10_300617	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	4,660	-	-	0.03	-	<0.001	-	-	-	<0.0001	33	<0.001	<0.001	-	0.32	<0.001	27	-	0.983	<0.0001	0.020	2	177	-	0.052				
MW010	14 Nov 2019	0902_MW010_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	983	-	0.01	-	-	-	-	-	-	25	-	-	-	0.33	-	19	-	0.436	-	-	2	162	-	-				
MW010	11 May 2020	0902_MW010_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	228	-	<0.01	-	-	-	-	-	-	25	-	-	-	0.10	-	18	-	0.467	-	-	2	156	-	-				
MW010	10 Nov 2020	0902_MW010_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	164	-	<0.01	-	-	-	-	-	-	24	-	-	-	0.09	-	17	-	0.402	-	-	2	153	-	-				
MW010	03 May 2021	0902_MW010_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW010	23 Nov 2021	0902_MW010_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	<0.01	-	-	-	-	-	-	36	-	-	-	2.65	-	24	-	0.702	-	-	2	171	-	-				
MW010	25 May 2022	0902_MW010_220525	Normal	ES2218422	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	0.025	-	-	-	-	-	-	-	-	-
MW010	02 Nov 2022	0902_MW010_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	<0.01	-	-	-	-	-	-	-	30	-	-	<0.05	-	-	21	0.461	-	-	-	2	166	-	-				
MW010	12 May 2023	0902_MW010_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW012	03 Jul 2017	0902_MW12_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	2,200	-	-	<0.01	-	0.001	-	-	-	<0.0001	100	<0.001	<0.001	-	2.95	<0.001	72	-	4.01	<0.0001	0.014	2	613	-	0.008				
MW012	03 Jul 2017	0902_QC103_030717	Field_D	ES1716548	NSW_0902_PFAS	Early Works Program	-	2,350	-	-	<0.01	-	0.002	-	-	-	<0.0001	100	<0.001	<0.001	-	2.84	<0.001	66	-	4.07	<0.0001	0.013	2	577	-	0.008				
MW012	08 Nov 2019	0902_MW012_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW012	14 May 2020	0902_MW012_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW012	12 Nov 2020	0902_MW012_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW012	12 Nov 2020	0902_QC206_201112	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW012	06 May 2021	0902_MW012_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW012	06 May 2021	0902_QC103_210506	Field_D	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW012	29 Nov 2021	0902_MW012_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW012	27 May 2022	0902_MW012_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW012	18 Nov 2022	0902_MW012_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW012	11 May 2023	0902_MW012_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013	03 Jul 2017	0902_MW13_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	617	-	-	<0.01	-	<0.001	-	-	-	<0.0001	20	<0.001	<0.001	-	<0.05	<0.001	12	-	0.069	0.0002	0.010	<1	208	-	0.018				
MW013	08 Nov 2019	0902_MW013_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013	14 May 2020	0902_MW013_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013	12 Nov 2020	0902_MW013_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013	06 May 2021	0902_MW013_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013	06 May 2021	0902_QC203_210506	Interlab_D	RN1314562	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013	29 Nov 2021	0902_MW013_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013	27 May 2022	0902_MW013_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013	18 Nov 2022	0902_MW013_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW013	11 May 2023	0902_MW013_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW014	03 Jul 2017	0902_MW14_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	512	-	-	0.14	-	0.002	-	-	-	<0.0001	21	<0.001	<0.001	-	1.82	0.011	22	-	0.207	<0.0001	<0.001	<1	160	-	0.006				
MW014	08 Nov 2019	0902_MW014_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW014	14 May 2020	0902_MW014_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW014	12 Nov 2020	0902_MW014_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW014	06 May 2021	0902_MW014_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW014	29 Nov 2021	0902_MW014_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW014	27 May 2022	0902_MW014_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW014	18 Nov 2022	0902_MW014_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW014	11 May 2023	0902_MW014_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW015	03 Jul 2017	0902_MW15_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	1,010	-	-	0.03	-	<0.001	-	-	-	<0.0001	10	<0.001	<0.001	-	<0.05	<0.001	12	-	0.095	<0.0001	0.001	<1	124	-	0.009				
MW015	08 Nov 2019	0902_MW015_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW015	14 May 2020	0902_MW015_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW015	12 Nov 2020	0902_MW015_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW015	06 May 2021	0902_MW015_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW015	29 Nov 2021	0902_MW015_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW015	27 May 2022	0902_MW015_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW015	18 Nov 2022	0902_MW015_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW015	11 May 2023	0902_MW015_23011	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW016	07 Jul 2017	0902_MW16_070717	Normal	ES1716793	NSW_0902_PFAS	Early Works Program	-	1,720	-	-	0.02	-	<0.001	-	-	-	<0.0001	17	<0.001	<0.001	-	<0.05	<0.001	24	-	0.111	<0.0001	0.007	<1	450	-	<0.005				
MW016	08 Nov 2019	0902_MW016_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW016	14 May 2020	0902_MW016_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW016	12 Nov 2020	0902_MW016_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW016	06 May 2021	0902_MW016_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW016	29 Nov 2021	0902_MW016_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW016	29 Nov 2021	0902_QC110_211129	Field_D	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW016	26 May 2022	0902_MW016_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T4 - Groundwater Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																														
MW016	11 Nov 2022	0902_MW016_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW016	11 May 2023	0902_MW016_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	03 Jul 2017	0902_MW17_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	*<0.01*	*1.03*	5.06	**6.09**	7.42	0.68	0.56	0.06	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	08 Nov 2019	0902_MW017_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	0.04	*1.71*	5.17	**6.88**	8.10	0.37	0.55	0.09	*<0.02*	*<0.1*	*<0.02*	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	14 May 2020	0902_MW017_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.30	*6.92*	12.0	**18.9**	22.7	0.43	0.66	0.42	*<0.02*	0.6	0.21	1.03	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	12 Nov 2020	0902_MW017_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.14	*5.93*	8.78	**14.7**	16.3	0.33	0.39	0.19	*<0.02*	0.1	0.07	0.33	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	06 May 2021	0902_MW017_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.08	*1.90*	7.01	**8.91**	10.4	0.41	0.59	0.15	*<0.02*	*<0.1*	0.05	0.23	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	29 Nov 2021	0902_MW017_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.05	*1.70*	5.60	**7.30**	8.96	0.56	0.59	0.12	*<0.02*	0.2	0.02	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	27 May 2022	0902_MW017_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.04	*1.41*	4.37	**5.78**	7.18	0.46	0.55	0.10	*<0.02*	0.2	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	18 Nov 2022	0902_MW017_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	0.01	*0.62*	2.17	**2.79**	3.46	0.28	0.33	0.02	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW017	11 May 2023	0902_MW017_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.02	*0.73*	2.02	**2.75**	3.42	0.33	0.27	0.05	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW019	07 Jul 2017	0902_MW19_070717	Normal	ES1716793	NSW_0902_PFAS	Early Works Program	*<0.01*	*0.07*	0.34	**0.41**	0.65	0.17	0.07	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	06 Jul 2017	0902_MW20_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	0.22	*0.89*	13.3	**14.2**	16.7	0.71	1.00	0.22	*<0.02*	*<0.1*	*<0.02*	0.30	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	11 Nov 2019	0902_MW020_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	0.06	*0.29*	3.15	**3.44**	4.34	0.40	0.31	0.05	*<0.02*	*<0.1*	*<0.02*	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	13 May 2020	0902_MW020_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.11	*0.43*	10.0	**10.4**	13.5	0.91	1.04	0.11	*<0.02*	*<0.1*	0.12	0.77	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	09 Nov 2020	0902_MW020_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	0.09	*0.71*	9.05	**9.76**	12.9	0.79	1.13	0.08	*<0.02*	*<0.1*	0.11	0.87	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	05 May 2021	0902_MW020_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.17	*0.42*	7.30	**7.72**	10.1	0.38	0.62	0.14	*<0.02*	*<0.1*	0.17	0.86	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	24 Nov 2021	0902_MW020_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.24	*1.02*	14.8	**15.8**	18.3	0.41	0.70	0.19	*<0.02*	*<0.1*	0.10	0.79	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	27 May 2022	0902_MW020_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.03	*0.22*	3.32	**3.54**	4.66	0.44	0.46	0.04	*<0.02*	*<0.1*	0.03	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	08 Nov 2022	0902_MW020_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.01	*0.08*	1.89	**1.97**	2.86	0.38	0.44	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW020	08 May 2023	0902_MW020_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.01	*0.05*	1.74	**1.79**	2.67	0.46	0.37	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	06 Jul 2017	0902_MW21_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	0.49	*7.16*	8.01	**15.2**	17.8	0.34	0.53	0.28	*<0.02*	*<0.1*	0.15	0.63	0.21	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	11 Nov 2019	0902_MW021_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	0.42	*5.83*	4.48	**10.3**	12.1	0.16	0.19	0.15	*<0.02*	*<0.1*	0.18	0.54	0.14	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	13 May 2020	0902_MW021_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.46	*4.83*	4.91	**9.74**	12.6	0.21	0.26	0.19	*<0.02*	0.2	0.37	0.95	0.23	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	09 Nov 2020	0902_MW021_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	0.55	*6.38*	4.16	**10.5**	13.0	0.15	0.27	0.23	*<0.02*	0.1	0.16	0.74	0.23	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	05 May 2021	0902_MW021_210505	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.31	*3.08*	2.43	**5.51**	7.02	0.20	0.13	0.11	*<0.02*	0.1	0.15	0.37	0.09	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	24 Nov 2021	0902_MW021_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.21	*2.76*	1.57	**4.33**	5.34	0.06	0.07	0.05	*<0.02*	*<0.1*	0.12	0.41	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	24 Nov 2021	0902_QC206_211124	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	0.18	*2.0*	1.3	**3.3**	4.2	0.05	0.07	0.06	*<0.02*	0.06	0.09	0.25	0.07	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW021	27 May 2022	0902_MW021_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.27	*3.64*	2.15	**5.79**	7.15	0.09	0.14	0.10	*<0.02*	0.1	0.15	0.36	0.12	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	08 Nov 2022	0902_MW021_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.40	*3.99*	2.88	**6.87**	8.66	0.12	0.18	0.11	*<0.02*	0.1	0.17	0.53	0.14	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW021	08 May 2023	0902_MW021_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.38	*4.36*	2.66	**7.02**	8.67	0.13	0.14	0.12	*<0.02*	0.1	0.17	0.44	0.13	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	06 Jul 2017	0902_MW22_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	0.10	*4.00*	3.05	**7.05**	8.41	0.35	0.44	0.12	*<0.02*	*<0.1*	*<0.02*	0.24	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.05	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	06 Jul 2017	0902_QC202_060717	Interlab_D	170907	NSW_0902_PFAS	Early Works Program	0.07	*3.5*	1.8	**5.3**	-	0.45	0.52	0.12	*<0.02*	*<0.2*	*<0.02*	0.24	0.02	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.04	0.01	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW022	11 Nov 2019	0902_MW022_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	**0.91**	*29.4*	10.6	**40.0**	50.0	1.45	1.12	0.74	*<0.02*	0.6	1.22	2.53	0.46	0.40	0.17	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.21	0.11	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	13 May 2020	0902_MW022_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	**1.10**	*18.3*	8.40	**26.7**	37.2	1.17	0.92	0.60	0.04	0.6	1.20	2.96	0.66	0.53	0.22	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.49	*<0.05*	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	13 May 2020	0902_QC104_200513	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	**1.00**	*16.8*	7.44	**24.2**	33.7	1.08	0.86	0.55	0.03	0.5	1.08	2.69	0.56	0.48	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.41	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	09 Nov 2020	0902_MW022_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	0.54	*13.0*	5.40	**18.4**	25.4	1.06	1.01	0.55	0.03	0.4	0.56	2.00	0.35	0.19	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.13	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	05 May 2021	0902_MW022_210505	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	**0.69**	*8.91*	8.06	**17.0**	23.6	0.88	0.90	0.47	*<0.02*	0.4	0.68	1.87	0.38	0.14	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.14	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	22 Nov 2021	0902_MW022_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	0.37	*5.60*	5.08	**10.7**	14.3	0.66	0.61	0.33	*<0.02*	0.2	0.24	0.94	0.18	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	30 May 2022	0902_MW022_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.06	*1.67*	2.06	**3.73**	4.71	0.23	0.29	0.08	*<0.02*	*<0.1*	0.05	0.23	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	08 Nov 2022	0902_MW022_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.07	*1.24*	2.39	**3.63**	4.81	0.28	0.34	0.07	*<0.02*	*<0.1*	0.06	0.32	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW022	08 Nov 2022	0902_QC211_221108	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	0.06	*0.91*	2.2	**3.1**	4.2	0.27	0.33	0.07	*<0.02*	0.06	0.06	0.23	0.04	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW022	08 May 2023	0902_MW022_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.48	*12.0*	10.1	**22.1**	28.6	1.30	1.18	0.44	0.02	0.2	0.69	1.61	0.39	0.13	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	06 Jul 2017	0902_MW23_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	*<0.01*	*<0.01*	0.05	0.05	0.07	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	06 Jul 2017	0902_QC102_060717	Field_D	ES1716700	NSW_0902_PFAS	Early Works Program	*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	11 Nov 2019	0902_MW023_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*0.14*	0.05	**0.19**	0.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	13 May 2020	0902_MW023_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.02	*0.49*	0.17	**0.66**	0.78	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	09 Nov 2020	0902_MW023_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*0.25*	0.09	**0.34**	0.36	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	05 May 2021	0902_MW023_210505	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*0.18*	0.09	**0.27**	0.29	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	22 Nov 2021	0902_MW023_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.11*	0.06	**0.17**	0.19	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	22 Nov 2021	0902_QC200_211122	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.13*	0.07	**0.20**	0.21	0.01	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW023	27 May 2022	0902_MW023_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*0.02*	0.05	0.07	0.09	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW023	08 Nov 2022	0902_MW023_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.02*	0.11	**0.13**	0.21	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02

Table T4 - Groundwater Historical Analytical Results

							Nutrients																Inorganics																	
							Ammonia	Ammonia as N	Ammonia as N (filtered)	Nitrate (as N)	Nitrate (as N) (filtered)	Nitrite (as N)	Nitrite (as N) (filtered)	Nitrite + Nitrate as N	Nitrogen (Total Oxidised)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Reactive Phosphorus as P	Reactive Phosphorus as P (Orthophosphate as P)	Total Phosphorus as P (Organic Phosphate as P)	Hardness (filtered)	Carbonate Alkalinity (as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Anions Total	Cations Total	Bromine	Bromine (filtered)	Chloride	Fluoride	Ionic Balance	Sulphate as SO4 - Turbidimetric (filtered)	Sulphate
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	µg/L	µg/L	mg/L	mg/L	%	mg/L	mg/L
LOR							0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.2	100	0.1	0.01	0.01	0.005	0.01		1	1	1	1	1	0.01	0.01	10	10	1	0.1	0.01	1	1
PFAS NEMP 2020 Drinking Water																																						
PFAS NEMP 2020 Freshwater 99%																																						
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																																		
MW016	11 Nov 2022	0902_MW016_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW016	11 May 2023	0902_MW016_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW017	03 Jul 2017	0902_MW17_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*<1*	563	-	*<1*	563	49.8	59.0	-	2,400	1,250	1.0	8.55	156	-
MW017	08 Nov 2019	0902_MW017_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW017	14 May 2020	0902_MW017_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW017	12 Nov 2020	0902_MW017_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW017	06 May 2021	0902_MW017_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW017	29 Nov 2021	0902_MW017_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW017	27 May 2022	0902_MW017_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW017	18 Nov 2022	0902_MW017_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW017	11 May 2023	0902_MW017_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW019	07 Jul 2017	0902_MW19_070717	Normal	ES1716793	NSW_0902_PFAS	Early Works Program	-	0.66	-	2.61	-	0.02	-	2.63	-	-	-	-	2.05	-	-	-	*<1*	379	-	*<1*	379	56.4	55.2	-	1,600	1,470	0.7	1.08	356	-
MW020	06 Jul 2017	0902_MW20_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.02	-	2.22	-	*<0.01*	-	2.22	-	-	-	-	0.10	-	-	-	*<1*	52	-	*<1*	52	3.10	5.43	-	300	73	*<0.1*	27.3	*<10*	-
MW020	11 Nov 2019	0902_MW020_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW020	13 May 2020	0902_MW020_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW020	09 Nov 2020	0902_MW020_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW020	05 May 2021	0902_MW020_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW020	24 Nov 2021	0902_MW020_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW020	27 May 2022	0902_MW020_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW020	08 Nov 2022	0902_MW020_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW020	08 May 2023	0902_MW020_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021	06 Jul 2017	0902_MW21_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	*<0.01*	-	4.83	-	*<0.01*	-	4.83	-	-	-	-	0.01	-	-	-	*<1*	282	-	*<1*	282	7.19	7.71	-	700	25	0.5	3.49	41	-
MW021	11 Nov 2019	0902_MW021_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021	13 May 2020	0902_MW021_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021	09 Nov 2020	0902_MW021_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021	05 May 2021	0902_MW021_210505	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021	24 Nov 2021	0902_MW021_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021	24 Nov 2021	0902_QC206_211124	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021	27 May 2022	0902_MW021_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021	08 Nov 2022	0902_MW021_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW021	08 May 2023	0902_MW021_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW022	06 Jul 2017	0902_MW22_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.16	-	0.07	-	*<0.01*	-	0.07	-	-	-	-	*<0.01*	-	-	-	*<1*	470	-	*<1*	470	36.4	38.9	-	2,600	922	0.7	3.22	50	-
MW022	06 Jul 2017	0902_QC202_060717	Interlab_D	170907	NSW_0902_PFAS	Early Works Program	0.065	-	-	*<0.05*	-	*<0.05*	-	-	-	-	-	-	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW022	11 Nov 2019	0902_MW022_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	-	0.51	-	*<0.01*	-	*<0.01*	-	*<0.01*	-	-	-	1.02	-	-	-	-	*<1*	94	-	*<1*	94	3.52	3.56	-	200	56	-	0.54	3	-
MW022	13 May 2020	0902_MW022_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	3.65	-	*<0.10*	-	*<0.10*	-	*<0.10*	-	-	-	2.62	-	-	-	-	*<1*	220	-	*<1*	220	5.92	5.64	-	500	54	-	2.36	*<10*	-
MW022	13 May 2020	0902_QC104_200513	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW022	09 Nov 2020	0902_MW022_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	0.33	-	0.02	-	*<0.01*	-	0.02	-	-	-	2.57	-	-	-	-	*<1*	101	-	*<1*	101	3.72	3.30	-	200	45	0.2	6.10	21	-
MW022	05 May 2021	0902_MW022_210505	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	2.48	-	0.03	-	*<0.01*	-	0.03	-	3,100	3.1	-	-	-	-	1.07	-	-	-	-	-	-	-	-	1,300	-	-	-	-	-
MW022	22 Nov 2021	0902_MW022_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	0.17	-	*<0.01*	-	*<0.01*	-	*<0.01*	-	-	-	-	-	-	-	0.42	-	*<1*	515	-	*<1*	515	29.3	34.8	-	2,100	618	-	8.71	74	-
MW022	30 May 2022	0902_MW022_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	0.13	-	0.02	-	*<0.01*	-	0.02	-	-	-	-	-	-	-	0.49	-	*<1*	472	-	*<1*	472	39.7	38.6	-	2,500	1,040	-	1.39	45	-
MW022	08 Nov 2022	0902_MW022_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	0.21	-	0.03	-	*<0.01*	-	0.03	-	500	0.5	-	-	-	-	0.82	-	*<1*	482	-	*<1*	482	41.2	37.6	4,200	-	1,090	-	4.57	39	-
MW022	08 Nov 2022	0902_QC211_221108	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	0.22	-	0.02	-	0.006	-	-	-	-	0.8	-	-	-	-	790	*<5*	500	-	*<5*	500	-	-	-	2,800	890	-	3.0	-	41
MW022	08 May 2023	0902_MW022_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW023	06 Jul 2017	0902_MW23_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.06	-	0.02	-	*<0.01*	-	0.02	-	-	-	-	0.03	-	-	-	*<1*	302	-	*<1*	302	12.2	12.7	-	600	210	1.0	1.94	14	-
MW023	06 Jul 2017	0902_QC102_060717	Field_D	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	600	-	-	-	-	-
MW023	11 Nov 2019	0902_MW023_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW023	13 May 2020	0902_MW023_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW023	09 Nov 2020	0902_MW023_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW023	05 May 2021	0902_MW023_210505	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW023	22 Nov 2021	0902_MW023_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW023	22 Nov 2021	0902_QC200_211122	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW023	27 May 2022	0902_MW023_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW023	08 Nov 2022	0902_MW023_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW023	08 May 2023	0902_MW023_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW024	10 Jul 2017	0902_MW24_100717	Normal	ES1717019	NSW_0902_PFAS	Early Works Program	-	*<0.01*	-	0.28	-	0.02	-	0.30	-	-	-	-	*<0.01*	-	-	-	*<1*	295	-	*<1*	295	45.6	46.0	-	3,900	1,400	0.4	0.41	12	-
MW024	14 Nov 2019	0902_MW024_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW024	11 May 2020	0902_MW024_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW024	10 Nov 2020	0902_MW024_201110	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW024	03 May 2021	0902_MW024_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW024	23 Nov 2021	0902_MW024_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW024	25 May 2022	0902_MW024_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW024	02 Nov 2022	0902_MW024_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW024	02 Nov 2022	0902_QC101_221102	Field_D	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW024	02 Nov 2022	0902_QC201_221102	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW024	12 May 2023	0902_MW024_230512	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW025	05 Jul 2017	0902_MW25_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	*<0.01*	-	0.33	-	*<0.01*	-	0.33	-	-	-	-	0.01	-	-	-	*<1*	237	-	*<1*	237	26.6	27.3	-	1,500	768	0.3	1.15	12	-

Table T4 - Groundwater Historical Analytical Results

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Table T4 - Groundwater Historical Analytical Results

								PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
								Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR								0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water								**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%								*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																														
MW025	13 Nov 2019	0902-MW025_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		*<0.01*	*<0.01*	0.05	0.05	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	12 May 2020	0902_MW025_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		*<0.01*	*0.03*	0.05	**0.08**	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	11 Nov 2020	0902_MW025_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		*<0.01*	*0.01*	0.03	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	04 May 2021	0902_MW025_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	22 Nov 2021	0902_MW025_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP		*<0.01*	*0.02*	0.03	0.05	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	24 May 2022	0902_MW025_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		*<0.01*	*<0.01*	0.05	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	07 Nov 2022	0902_MW025_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		*<0.01*	*0.01*	0.05	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	07 Nov 2022	0902_QC108_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		*<0.01*	*0.02*	0.04	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW025	09 May 2023	0902_MW025_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		*<0.01*	*0.11*	0.04	**0.15**	0.23	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	05 Jul 2017	0902_MW26_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		0.39	*1.23*	12.7	**13.9**	18.2	1.02	1.31	0.38	*<0.02*	*<0.1*	0.14	0.84	0.23	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	13 Nov 2019	0902-MW026_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		0.12	*0.41*	2.44	**2.85**	4.12	0.28	0.24	0.11	*<0.02*	*<0.1*	0.08	0.38	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	11 May 2020	0902_MW026_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP		0.10	*0.37*	2.21	**2.58**	3.74	0.22	0.34	0.09	*<0.02*	*<0.1*	0.06	0.30	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	11 Nov 2020	0902_MW026_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		0.03	*0.18*	0.82	**1.00**	1.40	0.10	0.11	0.03	*<0.02*	*<0.1*	0.02	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	04 May 2021	0902_MW026_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		0.15	*0.48*	3.16	**3.64**	5.38	0.42	0.40	0.14	*<0.02*	*<0.1*	0.09	0.46	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	22 Nov 2021	0902_MW026_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP		0.18	*0.74*	3.84	**4.58**	7.29	0.78	0.60	0.15	*<0.02*	*<0.1*	0.16	0.73	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	24 May 2022	0902_MW026_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		0.21	*1.13*	4.82	**5.95**	8.67	0.61	0.80	0.24	*<0.02*	*<0.1*	0.14	0.60	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	07 Nov 2022	0902_MW026_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		0.10	*0.60*	2.35	**2.95**	4.38	0.36	0.40	0.09	*<0.02*	*<0.1*	0.06	0.36	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW026	12 May 2023	0902_MW026_230512	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.14	*0.52*	3.31	**3.83**	5.60	0.44	0.50	0.13	*<0.02*	*<0.1*	0.08	0.41	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	10 Jul 2017	0902_MW27_100717	Normal	ES1717019	NSW_0902_PFAS	Early Works Program		*<0.01*	*0.08*	0.48	**0.56**	0.82	0.11	0.10	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	13 Nov 2019	0902-MW027_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		0.02	*0.18*	0.92	**1.10**	1.65	0.19	0.17	0.02	*<0.02*	*<0.1*	0.02	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	11 May 2020	0902_MW027_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP		0.02	*0.19*	0.95	**1.14**	1.69	0.19	0.23	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	10 Nov 2020	0902_MW027_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP		0.02	*0.22*	0.77	**0.99**	1.51	0.18	0.21	*<0.02*	*<0.02*	*<0.1*	0.02	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	10 Nov 2020	0902_QC101_201110	Field_D	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP		0.02	*0.24*	0.87	**1.11**	1.61	0.19	0.20	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	03 May 2021	0902_MW027_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		0.03	*0.31*	0.98	**1.29**	1.87	0.19	0.18	0.03	*<0.02*	*<0.1*	0.03	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	23 Nov 2021	0902_MW027_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		0.02	*0.31*	0.97	**1.28**	1.92	0.23	0.17	0.02	*<0.02*	*<0.1*	0.03	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	25 May 2022	0902_MW027_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		0.02	*0.49*	1.24	**1.73**	2.49	0.23	0.26	0.03	*<0.02*	*<0.1*	0.03	0.17	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	25 May 2022	0902_QC103_220525	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		0.03	*0.54*	1.60	**2.14**	3.11	0.30	0.34	0.04	*<0.02*	*<0.1*	0.04	0.19	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW027	02 Nov 2022	0902_MW027_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP		0.03	*0.49*	1.28	**1.77**	2.58	0.22	0.26	0.03	*<0.02*	*<0.1*	0.04	0.21	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	10 Jul 2017	0902_MW28_100717	Normal	ES1717019	NSW_0902_PFAS	Early Works Program		0.10	*0.03*	8.70	**8.73**	23.2	4.32	3.53	*<0.02*	*<0.02*	0.6	0.86	4.38	0.70	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	13 Nov 2019	0902-MW028_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		0.01	*0.24*	0.10	**0.34**	1.14	0.12	0.03	*<0.02*	*<0.02*	*<0.1*	0.04	0.30	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.28	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	11 May 2020	0902_MW028_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP		0.10	*0.04*	9.46	**9.50**	25.4	3.52	4.13	*<0.02*	*<0.02*	0.6	1.00	5.91	0.67	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	10 Nov 2020	0902_MW028_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP		0.07	*0.04*	6.49	**6.53**	17.2	2.45	2.57	*<0.02*	*<0.02*	0.6	0.86	3.57	0.56	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	03 May 2021	0902_MW028_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		0.16	*0.04*	12.1	**12.1**	29.2	3.79	4.20	*<0.02*	*<0.02*	0.7	1.31	6.08	0.86	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	23 Nov 2021	0902_MW028_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP		0.07	*0.12*	4.31	**4.43**	10.6	1.70	1.28	*<0.02*	*<0.02*	0.2	0.43	2.18	0.26	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	25 May 2022	0902_MW028_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		0.14	*0.09*	9.73	**9.82**	19.2	2.12	2.84	0.03	*<0.02*	0.4	0.47	2.87	0.54	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	02 Nov 2022	0902_MW028_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP		0.24	*0.10*	16.5	**16.6**	31.6	2.97	4.49	0.02	*<0.02*	0.5	1.00	5.00	0.74	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW028	12 May 2023	0902_MW028_230512	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.23	*0.07*	11.8	**11.9**	23.4	2.66	2.69	0.05	*<0.02*	0.6	0.90	3.75	0.67	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW029	10 Jul 2017	0902_MW29_100717	Normal	ES1717019	NSW_0902_PFAS	Early Works Program		0.13	*2.72*	4.85	**7.57**	10.7	0.73	0.63	0.17	*<0.02*	0.7	0.13	0.60	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	05 Nov 2013	BH8-8	Normal	100306	ACTNSW_Hist_202009-2			*<0.02*	*0.08*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW030	03 Jul 2017	0902_MW30_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program		0.18	*1.21*	3.82	**5.03**	6.66	0.52	0.36	0.10	*<0.02*	*<0.1*	0.06	0.34	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	14 Nov 2019	0902_MW030_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP		0.17	*1.06*	2.06	**3.12**	4.44	0.32	0.32	0.07	*<0.02*	*<0.1*	0.06	0.32	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	14 Nov 2019	0902_QC201_191114	Interlab_D	RN1253933	NSW_0902_PFASOMP	201911_AECOM_OMP		0.11	*0.86*	1.7	**2.56**	-	0.23	0.21	0.043	*<0.01*	0.13	0.048	0.24	0.043	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW030	13 May 2020	0902_MW030_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		0.19	*1.27*	2.22	**3.49**	4.92	0.35	0.31	0.09	*<0.02*	*<0.1*	0.07	0.35	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	13 May 2020	0902_QC202_200513	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP		0.12	*0.83*	1.6	**2.43**	-	0.28	0.26	0.048	*<0.01*	0.084	0.053	0.24	0.053	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW030	11 Nov 2020	0902_MW030_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		0.20	*1.62*	2.50	**4.12**	5.99	0.36	0.49	0.12	*<0.02*	0.1	0.09	0.42	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	11 Nov 2020	0902_QC102_201111	Field_D	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		0.19	*1.47*	2.42	**3.89**	5.68	0.34	0.49	0.10	*<0.02*	0.1	0.08	0.41	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	03 May 2021	0902_MW030_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		0.11	*1.07*	1.84	**2.91**	4.06	0.28	0.27	0.07	*<0.02*	*<0.10*	0.06	0.30	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	23 Nov 2021	0902_MW030_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		0.12	*0.94*	1.57	**2.51**	3.57	0.28	0.21	0.05	*<0.02*	*<0.1*	0.05	0.30	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	23 Nov 2021	0902_QC205_211123	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP		0.09	*0.69*	1.3	**2.0**	2.8	0.20	0.20	0.04	*<0.02*	0.04	0.04	0.20	0.04	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW030	26 May 2022	0902_MW030_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		0.07	*0.39*	1.03	**1.42**	2.09	0.17	0.18	0.03	*<0.02*	*<0.1*	0.02	0.16	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	11 Nov 2022	0902_MW030_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		0.12	*0.75*	1.47	**2.22**	3.22	0.25	0.23	0.05	*<0.02*	*<0.1*	0.05	0.25	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW030	07 Dec 2022	0902_MW030_221207	Normal	312781	NSW_0902_PFASMGMT	Targeted GW Investigation		0.30	*1.9*	3.1	**5.0**	7.2	0.44	0.47	0.11	*<0.02*	0.1	0.1	0.53	0.11	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW030	08 May 2023	0902_MW030_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.05	*0.27*	0.76	**1.03**	1.49	0.13	0.11	*<0.02*	*<0.02*	*<0.1*	0.03	0.12	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*

Table T4 - Groundwater Historical Analytical Results

							Nutrients																	Inorganics																	
							Ammonia	Ammonia as N	Ammonia as N (filtered)	Nitrate (as N)	Nitrate (as N) (filtered)	Nitrite (as N)	Nitrite (as N) (filtered)	Nitrite + Nitrate as N	Nitrogen (Total Oxidised)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Reactive Phosphorus as P	Reactive Phosphorus as P (Orthophosphate as P)	Total Phosphorus as P (Organic Phosphate as P)		Hardness (filtered)	Carbonate Alkalinity (as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Anions Total	Cations Total	Bromine	Bromine (filtered)	Chloride	Fluoride	Ionic Balance	Sulphate as SO4 - Turbidimetric (filtered)	Sulphate	
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	µg/L	µg/L	mg/L	mg/L	%	mg/L	mg/L	
LOR							0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.2	100	0.1	0.01	0.01	0.005	0.01			1	1	1	1	1	0.01	0.01	10	10	1	0.1	0.01	1	1	
PFAS NEMP 2020 Drinking Water																																						
PFAS NEMP 2020 Freshwater 99%																																						
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																																		
MW025	13 Nov 2019	0902-MW025_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW025	12 May 2020	0902_MW025_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW025	11 Nov 2020	0902_MW025_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW025	04 May 2021	0902_MW025_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW025	22 Nov 2021	0902_MW025_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW025	24 May 2022	0902_MW025_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW025	07 Nov 2022	0902_MW025_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW025	07 Nov 2022	0902_QC108_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW025	09 May 2023	0902_MW025_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW026	05 Jul 2017	0902_MW26_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.01	-	6.42	-	*<0.01*	-	6.42	-	-	-	-	0.04	-	-		-	*<1*	332	-	*<1*	332	8.76	10.1	-	500	59	1.0	6.97	22	-	
MW026	13 Nov 2019	0902-MW026_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW026	11 May 2020	0902_MW026_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW026	11 Nov 2020	0902_MW026_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW026	04 May 2021	0902_MW026_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW026	22 Nov 2021	0902_MW026_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW026	24 May 2022	0902_MW026_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW026	07 Nov 2022	0902_MW026_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW026	12 May 2023	0902_MW026_230512	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW027	10 Jul 2017	0902_MW27_100717	Normal	ES1717019	NSW_0902_PFAS	Early Works Program	-	*<0.01*	-	0.04	-	*<0.01*	-	0.04	-	-	-	-	*<0.01*	-	-		-	*<1*	184	-	*<1*	184	20.0	18.2	-	1,800	575	0.5	4.64	5	-	
MW027	13 Nov 2019	0902-MW027_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW027	11 May 2020	0902_MW027_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW027	10 Nov 2020	0902_MW027_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW027	10 Nov 2020	0902_QC101_201110	Field_D	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW027	03 May 2021	0902_MW027_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW027	23 Nov 2021	0902_MW027_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW027	25 May 2022	0902_MW027_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW027	25 May 2022	0902_QC103_220525	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW027	02 Nov 2022	0902_MW027_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW028	10 Jul 2017	0902_MW28_100717	Normal	ES1717019	NSW_0902_PFAS	Early Works Program	-	*<0.01*	-	0.34	-	*<0.01*	-	0.34	-	-	-	-	0.12	-	-		-	*<1*	905	-	*<1*	905	24.2	23.9	-	500	197	3.2	0.66	29	-	
MW028	13 Nov 2019	0902-MW028_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW028	11 May 2020	0902_MW028_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW028	10 Nov 2020	0902_MW028_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW028	03 May 2021	0902_MW028_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW028	23 Nov 2021	0902_MW028_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW028	25 May 2022	0902_MW028_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW028	02 Nov 2022	0902_MW028_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW028	12 May 2023	0902_MW028_230512	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW029	10 Jul 2017	0902_MW29_100717	Normal	ES1717019	NSW_0902_PFAS	Early Works Program	-	*<0.01*	-	0.25	-	*<0.01*	-	0.25	-	-	-	-	*<0.01*	-	-		-	*<1*	49	-	*<1*	49	2.08	2.30	-	300	36	0.1	-	4	-	
MW030	05 Nov 2013	BH8-8	Normal	100306	ACTNSW_Hist_202009-2		0.049	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	220	*<5*	*<5*	220	-	-	-	-	250	-	4.8	-	21	
MW030	03 Jul 2017	0902_MW30_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	*<1*	203	-	*<1*	203	14.5	13.0	-	1,000	360	0.3	5.42	15	-	
MW030	14 Nov 2019	0902_MW030_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW030	14 Nov 2019	0902_QC201_191114	Interlab_D	RN1253933	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW030	13 May 2020	0902_MW030_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW030	13 May 2020	0902_QC202_200513	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW030	11 Nov 2020	0902_MW030_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW030	11 Nov 2020	0902_QC102_201111	Field_D	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW030	03 May 2021	0902_MW030_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW030	23 Nov 2021	0902_MW030_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW030	23 Nov 2021	0902_QC205_211123	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW030	26 May 2022	0902_MW030_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW030	11 Nov 2022	0902_MW030_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW030	07 Dec 2022	0902_MW030_221207	Normal	312781	NSW_0902_PFASMGMT	Targeted GW Investigation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		45	*<5*	210	-	*<5*	210	-	-	-	-	150	-	1.0	-	23	
MW030	08 May 2023	0902_MW030_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW032	04 Jul 2017	0902_MW32_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	*<1*	319	-	*<1*	319	15.8	17.0	-	900	300	1.0	3.70	44	-	
MW032	18 Jun 2019	MW32_180619	Normal	ES1918765	NSW_0902_FSBGME		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW032	28 Nov 2019	0902_MW032_191128	Normal	ES1939504	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW032	11 May 2020	0902_MW032_200512	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW032	11 Nov 2020	0902_MW032_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW032	05 May 2021	0902_MW032_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW032	24 Nov 2021	0902_MW032_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW032	24 May 2022	0902_MW032_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW032	10 Nov 2022	0902_MW032_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW032	15 May 2023	0902_MW032_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW033	04 Jul 2017	0902_MW33_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.02	-	3.25	-	*<0.01*	-	3.25	-	-	-	-	0.02	-	-		-	*<1*	1,000	-	*<1*	1,000	50.2	55.9	-	3,800	1,070	1.5	5.42	*<10*	-	
MW033	18 Jun 2019	MW33_180619	Normal	ES1918765	NSW_0902_FSBGME		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW033	28 Nov 2019	0902_MW033_191128	Normal	ES1939504	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Table T4 - Groundwater Historical Analytical Results

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Table T4 - Groundwater Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																													
MW033	11 May 2020	0902_MW033_200512	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	0.01	*0.14*	0.45	**0.59**	0.78	0.04	0.05	<0.02	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW033	11 Nov 2020	0902_MW033_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.01	*0.11*	0.10	**0.21**	0.21	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW033	05 May 2021	0902_MW033_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.36	*3.12*	14.2	**17.3**	27.8	2.05	2.66	0.57	<0.02	1.1	0.54	2.91	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW033	24 Nov 2021	0902_MW033_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	*0.02*	0.10	**0.12**	0.14	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW033	24 May 2022	0902_MW033_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.04	*0.26*	0.03	**0.29**	0.56	<0.02	<0.02	<0.02	<0.02	<0.1	0.08	0.07	0.06	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW033	10 Nov 2022	0902_MW033_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	0.01	*0.25*	0.03	**0.28**	0.31	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW033	15 May 2023	0902_MW033_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.02	*0.08*	0.85	**0.93**	1.30	0.10	0.09	<0.02	<0.02	<0.1	0.04	0.10	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW034	04 Jul 2017	0902_MW34_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	0.22	*0.50*	7.58	**8.08**	13.0	1.47	1.57	0.22	<0.02	<0.1	0.18	1.06	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW034	18 Jun 2019	MW34_180619	Normal	ES1918765	NSW_0902_FSBGME		0.12	*0.26*	3.56	**3.82**	6.77	0.67	0.78	0.13	<0.02	<0.1	0.16	0.97	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW034	18 Jun 2019	QC104_180619	Field_D	ES1918765	NSW_0902_FSBGME		0.14	*0.27*	3.80	**4.07**	7.03	0.70	0.81	0.13	<0.02	<0.1	0.17	0.90	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW034	28 Nov 2019	0902_MW034_191128	Normal	ES1939504	NSW_0902_PFASOMP	201911_AECOM_OMP	0.13	*0.29*	3.56	**3.85**	6.50	0.64	0.70	0.12	<0.02	<0.1	0.15	0.81	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW034	28 Nov 2019	0902_QC112_191128	Field_D	ES1939504	NSW_0902_PFASOMP	201911_AECOM_OMP	0.13	*0.28*	3.77	**4.05**	6.76	0.66	0.73	0.12	<0.02	<0.1	0.14	0.83	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW034	11 May 2020	0902_MW034_200512	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	0.15	*0.27*	4.42	**4.69**	8.02	0.74	1.01	0.12	<0.02	0.1	0.16	0.92	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW034	11 Nov 2020	0902_MW034_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	0.28	*1.64*	7.04	**8.68**	13.8	1.00	1.12	0.29	<0.02	0.4	0.28	1.53	0.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW034	05 May 2021	0902_MW034_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.02	*0.08*	0.95	**1.03**	1.45	0.09	0.09	<0.02	<0.02	<0.1	0.06	0.14	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW034	24 Nov 2021	0902_MW034_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	*0.09*	0.18	**0.27**	0.41	0.05	0.03	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW034	24 May 2022	0902_MW034_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.03	*0.16*	0.63	**0.79**	1.30	0.12	0.14	0.03	<0.02	<0.1	0.03	0.13	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW034	10 Nov 2022	0902_MW034_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	0.06	*0.26*	1.36	**1.62**	2.68	0.26	0.28	0.03	<0.02	<0.1	0.07	0.31	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW034	15 May 2023	0902_MW034_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.16	*0.43*	4.20	**4.63**	8.00	0.81	0.81	0.17	<0.02	0.2	0.18	0.91	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW036	06 Jul 2017	0902_MW36_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	<0.01	*0.06*	0.86	**0.92**	1.48	0.25	0.23	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW036	11 Nov 2019	0902_MW036_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.01	*0.03*	0.45	**0.48**	0.74	0.12	0.09	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW036	13 May 2020	0902_MW036_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.01	*0.05*	0.69	**0.74**	1.28	0.20	0.18	<0.02	<0.02	<0.1	0.03	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW036	09 Nov 2020	0902_MW036_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.01	*0.04*	0.56	**0.60**	0.97	0.15	0.13	<0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW036	07 May 2021	0902_MW036_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	0.01	*0.06*	0.80	**0.86**	1.43	0.20	0.18	<0.02	<0.02	<0.1	0.04	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW036	22 Nov 2021	0902_MW036_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	0.01	*0.04*	0.60	**0.64**	1.24	0.27	0.14	<0.02	<0.02	<0.1	0.04	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW036	27 May 2022	0902_MW036_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.02	*0.08*	0.97	**1.05**	1.67	0.20	0.21	0.02	<0.02	<0.1	0.03	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW036	27 May 2022	0902_QC108_220527	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.02	*0.13*	1.45	**1.58**	2.46	0.26	0.29	0.03	<0.02	<0.1	0.05	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW036	08 Nov 2022	0902_MW036_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.04	*0.13*	1.57	**1.70**	2.68	0.27	0.29	0.03	<0.02	<0.1	0.05	0.27	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW036	08 May 2023	0902_MW036_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	*0.03*	0.41	**0.44**	0.70	0.12	0.08	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW040	10 Jul 2017	0902_MW40_100717	Normal	ES1717019	NSW_0902_PFAS	Early Works Program	**9.46**	*872*	97.3	**969**	1,040	10.5	8.60	7.69	2.56	<0.5	5.85	24.1	3.05	0.61	0.27	<0.10	<0.10	<0.10	<0.25	<0.10	0.62	1.21	<0.10	<0.10	<0.25	<0.10	<0.25	<0.25	<0.10	<0.25
MW040	07 Aug 2017	0902_MW40_170807	Normal	ES1719525	NSW_0902_PFAS	Early Works Program	**7.54**	*618*	84.0	**702**	773	7.02	8.29	2.79	0.88	11.8	5.49	20.6	1.46	0.67	0.74	0.05	0.04	<0.02	<0.05	<0.05	0.48	2.02	<0.05	1.17	<0.05	<0.02	<0.05	<0.02	<0.05
MW040	07 Aug 2017	0902_QC207_170807	Interlab_D	172856	NSW_0902_PFAS	Early Works Program	**9.8**	*570*	88	**658**	-	8.1	8.1	7.4	0.40	3.8	6.2	24	2.8	<0.05	0.1	<0.02	<0.05	<0.1	<0.5	<0.01	0.46	0.60	0.01	0.5	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW040	13 Nov 2019	0902-MW040_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	**3.13**	*205*	44.2	**249**	298	7.65	5.64	3.56	1.59	3.7	5.51	15.3	1.46	0.15	0.08	0.05	0.02	<0.02	<0.05	<0.05	0.26	0.40	<0.05	0.40	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW040	11 May 2020	0902_MW040_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	**3.24**	*224*	48.6	**273**	319	4.72	7.14	6.19	3.60	2.0	3.34	13.5	1.46	0.10	0.06	0.05	<0.05	<0.05	<0.12	<0.05	0.20	0.30	<0.05	0.43	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW040	11 May 2020	0902_QC100_200511	Field_D	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	**3.13**	*216*	42.6	**259**	296	4.44	4.60	4.74	1.20	1.9	3.07	11.7	1.47	0.14	0.06	0.04	0.02	<0.02	<0.05	<0.05	0.19	0.25	<0.05	0.46	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW040	10 Nov 2020	0902_MW040_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	**2.09**	*157*	32.9	**190**	222	5.57	3.95	1.91	1.01	2.8	2.77	10.2	0.99	0.13	0.04	0.03	0.02	<0.02	<0.05	<0.05	0.13	0.12	<0.05	0.24	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW040	10 Nov 2020	0902_QC100_201110	Field_D	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	**1.92**	*151*	31.3	**182**	212	5.16	3.62	1.85	0.84	2.7	2.66	9.78	0.85	0.12	0.04	0.03	<0.02	<0.02	<0.05	<0.05	0.10	0.08	<0.05	0.21	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW040	03 May 2021	0902_MW040_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	**1.23**	*65.2*	22.8	**88.0**	105	2.34	3.24	1.36	0.50	0.8	1.30	5.29	0.53	0.07	0.03	0.03	<0.02	<0.02	<0.05	<0.05	0.10	0.06	<0.05	0.22	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW040	23 Nov 2021	0902_MW040_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	**2.54**	*74.7*	41.6	**116**	152	6.39	5.61	2.50	0.43	1.3	2.60	12.7	1.35	0.07	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.14	0.05	<0.05	0.18	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW040	23 Nov 2021	0902_QC103_211123	Field_D	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	**3.98**	*129*	70.4	**199**	258	10.1	11.0	5.00	0.68	2.0	4.20	19.2	1.97	0.09	0.03	0.03	0.02	<0.02	<0.05	<0.05	0.20	0.07	<0.05	0.31	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW040	25 May 2022	0902_MW040_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	**0.59**	*66.5*	13.1	**79.6**	88.8	1.22	1.83	0.99	1.15	0.4	0.38	2.04	0.26	0.07	0.04	0.03	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.22	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW040	02 Nov 2022	0902_MW040_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	**1.32**	*38.1*	34.4	**72.5**	93.6	3.09	4.29	1.72	0.48	0.9	1.30	7.14	0.68	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	0.13	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW040	25 Nov 2022	0902_MW040_221125	Normal	311958	NSW_0902_PFASMGMT	TGI	**1.2**	*25*	25	**51**	67	2.9	2.9	1.4	0.26	0.91	1.2	5.4	0.60	0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.06	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW040	12 May 2023	0902_MW040_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	**1.29**	*54.4*	22.3	**76.7**	92.7	2.44	2.32	1.06	0.40	0.9	1.51	5.01	0.75	0.09	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	0.18	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW041	10 Jul 2017	0902_MW41_100717	Normal	ES1717019	NSW_0902_PFAS	Early Works Program	<0.01	*0.09*	0.09	**0.18**	0.18	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW041	13 Nov 2019	0902-MW041_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.01	*0.21*	0.08	**0.29**	0.29	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW041	13 Nov 2019	0902_QC200_191113	Interlab_D	RN1253933	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.01	*0.16*	0.064	**0.224**	-	0.012	<0.01	<0.01	<0.01	<0.05	<0.02	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW041	11 May 2020	0902_MW041_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.01	*0.08*	0.19	**0.27**	0.32	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW041	10 Nov 2020	0902_MW041_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.01	*0.04*	0.13	**0.17**	0.17	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW041	03 May 2021	0902_MW041_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.01	*0.04*	0.11	**0.15**	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW041	23 Nov 2021	0902_MW041_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	*0.05*	0.08	**0.13**	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW041	23 Nov 2021	0902_QC202_211123	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	*0.06*	0.09	**0.14**	0.15	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW041	25 May 2022	0902_MW041_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	*0.08*	0.08	**0.16**	0.18	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW041	25 May 2022	0902_QC202_220525	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	*0.07*	0.09	**0.16**	0.25	0.01	<0.01	<0.01	<0.02	0.04	<0.02	0.03	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.02	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW041	02 Nov 2022	0902_MW041_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW041	15 May 2023	0902_MW041_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	*0.04*	0.03	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW042	10 Jul 2017	0902_MW42_100717	Normal	ES1717019	NSW_0902_PFAS	Early Works Program	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW042	13 Nov 2019	0902-MW042_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW042	11 May 2020	0902_MW042_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.

Table T4 - Groundwater Historical Analytical Results

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Table T4 - Groundwater Historical Analytical Results

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Table T4 - Groundwater Historical Analytical Results

								PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids											PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
								Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR								0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water								**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%								*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																															
MW043	13 Nov 2019	0902-MW043_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		*<0.01*	*0.04*	*<0.02*	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	11 May 2020	0902_MW043_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP		*<0.01*	*0.07*	*<0.02*	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	10 Nov 2020	0902_MW043_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP		*<0.01*	*0.12*	*<0.02*	**0.12**	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	03 May 2021	0902_MW043_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		*<0.01*	*0.06*	*<0.02*	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	23 Nov 2021	0902_MW043_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP		*<0.01*	*0.02*	0.01	0.03	0.11	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	25 May 2022	0902_MW043_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		*<0.01*	*0.15*	0.02	**0.17**	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	02 Nov 2022	0902_MW043_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP		*<0.01*	*0.13*	0.03	**0.16**	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW043	15 May 2023	0902_MW043_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		*<0.01*	*0.11*	0.02	**0.13**	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW044	06 Jul 2017	0902_MW44_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		*<0.01*	*<0.01*	0.08	**0.08**	0.14	0.02	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW044	07 May 2021	0902_MW044_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP		*<0.01*	*0.02*	0.04	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW044	07 May 2021	0902_QC205_210507	Interlab_D	RN1314562	NSW_0902_PFASOMP	202105_AECOM_OMP		*<0.01*	*0.038*	0.038	**0.076**	-	0.01	*<0.01*	*<0.01*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW045	06 Jul 2017	0902_MW45_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		*<0.01*	*<0.01*	0.05	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	13 Nov 2019	0902-MW045_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		*<0.01*	*0.02*	0.04	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	12 May 2020	0902_MW045_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		*<0.01*	*0.05*	0.06	**0.11**	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	10 Nov 2020	0902_MW045_201110	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		*<0.01*	*0.02*	0.03	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	10 Nov 2020	0902_QC201_201110	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP		*<0.01*	*<0.02*	0.028	0.028	-	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW045	07 May 2021	0902_MW045_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP		*<0.01*	*0.12*	0.07	**0.19**	0.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	21 Nov 2022	0902_MW045_221121	Normal	ES2242128	NSW_0902_PFASOMP	202211_AECOM_OMP		*<0.01*	*0.03*	0.06	**0.09**	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW045	09 May 2023	0902_MW045_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		*<0.01*	*0.04*	0.06	**0.10**	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	06 Jul 2017	0902_MW46_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		*<0.01*	*<0.01*	0.04	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	13 Nov 2019	0902-MW046_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		*<0.01*	*0.02*	0.05	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	12 May 2020	0902_MW046_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		*<0.01*	*0.04*	0.07	**0.11**	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	10 Nov 2020	0902_MW046_201110	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	04 May 2021	0902_MW046_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		*<0.01*	*<0.01*	0.04	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	22 Nov 2021	0902_MW046_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP		*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	22 Nov 2021	0902_QC201_211122	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP		*<0.01*	*<0.01*	0.03	0.03	0.04	0.01	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW046	24 May 2022	0902_MW046_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		*<0.01*	*<0.01*	0.05	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	07 Nov 2022	0902_MW046_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		*<0.01*	*<0.01*	0.05	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW046	07 Nov 2022	0902_QC208_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP		*<0.01*	*<0.01*	0.04	0.04	0.13	0.01	0.01	*<0.01*	*<0.02*	*<0.02*	*<0.02*	0.01	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW046	09 May 2023	0902_MW046_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		*<0.01*	*<0.01*	0.05	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	06 Jul 2017	0902_MW47_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		**0.60**	*8.61*	14.0	**22.6**	33.1	4.00	2.71	0.59	*<0.02*	*<0.1*	0.59	1.74	0.23	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	13 Nov 2019	0902-MW047_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		0.56	*6.87*	13.8	**20.7**	30.6	2.47	2.70	0.59	*<0.02*	0.2	0.50	2.61	0.32	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	11 May 2020	0902_MW047_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP		0.47	*6.80*	11.8	**18.6**	27.1	1.97	2.63	0.61	*<0.02*	0.2	0.41	1.91	0.33	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	10 Nov 2020	0902_MW047_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP		0.34	*3.93*	7.22	**11.2**	17.7	1.36	2.42	0.39	*<0.02*	0.1	0.31	1.35	0.25	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	03 May 2021	0902_MW047_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		0.37	*3.08*	8.66	**11.7**	18.0	1.55	1.75	0.32	*<0.02*	0.2	0.34	1.44	0.24	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	23 Nov 2021	0902_MW047_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		0.38	*5.18*	8.85	**14.0**	20.7	1.91	1.64	0.35	*<0.02*	0.1	0.32	1.77	0.22	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	25 May 2022	0902_MW047_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		0.03	*0.82*	0.60	**1.42**	1.80	0.10	0.12	0.04	*<0.02*	*<0.1*	*<0.02*	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	02 Nov 2022	0902_MW047_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP		0.02	*0.55*	0.56	**1.11**	1.45	0.09	0.11	0.03	*<0.02*	*<0.1*	*<0.02*	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW047	15 May 2023	0902_MW047_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.15	*2.23*	3.63	**5.86**	8.52	0.74	0.77	0.18	*<0.02*	*<0.1*	0.16	0.56	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	05 Jul 2017	0902_MW48_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		*<0.01*	*<0.01*	0.20	**0.20**	0.42	0.07	0.08	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	13 Nov 2019	0902-MW048_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		*<0.01*	*<0.01*	0.18	**0.18**	0.42	0.05	0.05	*<0.02*	*<0.02*	*<0.1*	0.02	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	11 May 2020	0902_MW048_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP		*<0.01*	*0.01*	0.16	**0.17**	0.36	0.05	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	10 Nov 2020	0902_MW048_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP		*<0.01*	*<0.01*	0.09	**0.09**	0.23	0.04	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	03 May 2021	0902_MW048_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		*<0.01*	*<0.01*	0.12	**0.12**	0.29	0.06	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	23 Nov 2021	0902_MW048_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		*<0.01*	*0.05*	0.17	**0.22**	0.56	0.10	0.06	*<0.02*	*<0.02*	*<0.1*	0.03	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	25 May 2022	0902_MW048_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		*<0.01*	*<0.01*	0.25	**0.25**	0.62	0.10	0.11	*<0.02*	*<0.02*	*<0.1*	0.02	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	02 Nov 2022	0902_MW048_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP		*<0.01*	*<0.01*	0.37	**0.37**	0.85	0.12	0.13	*<0.02*	*<0.02*	*<0.1*	0.03	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW048	12 May 2023	0902_MW048_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		*<0.01*	*<0.01*	0.34	**0.34**	0.82	0.12	0.12	*<0.02*	*<0.02*	*<0.1*	0.04	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	06 Jul 2017	0902_MW50_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		**0.90**	*22.1*	8.86	**31.0**	40.0	1.56	1.25	0.62	0.04	0.6	0.69	2.32	0.43	0.04	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.29	0.16	*<0.05*	0.08	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	06 Jul 2017	0902_QC104_060717	Field_D	ES1716700	NSW_0902_PFAS	Early Works Program		**0.75**	*17.4*	7.68	**25.1**	32.2	1.74	1.11	0.48	*<0.02*	*<0.1*	0.79	1.68	0.24	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.24	0.09	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	13 Nov 2019	0902-MW050_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		0.25	*6.07*	1.97	**8.04**	9.94	0.19	0.18	0.16	*<0.02*	0.1	0.24	0.57	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	0.04	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW050	15 May 2020	0902_MW050_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP		**0.60**	*9.50*	5.84	**15.3**	21.3	0.85	0.88	0.35	0.04	0.3	0.60	1.74	0.32	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*

Table T4 - Groundwater Historical Analytical Results

							Nutrients																	Inorganics																	
							Ammonia	Ammonia as N	Ammonia as N (filtered)	Nitrate (as N)	Nitrate (as N) (filtered)	Nitrite (as N)	Nitrite (as N) (filtered)	Nitrite + Nitrate as N	Nitrogen (Total Oxidised)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Reactive Phosphorus as P	Reactive Phosphorus as P (Orthophosphate as P)	Total Phosphorus as P (Organic Phosphate as P)	Hardness (filtered)	Carbonate Alkalinity (as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Anions Total	Cations Total	Bromine	Bromine (filtered)	Chloride	Fluoride	Ionic Balance	Sulphate as SO4 - Turbidimetric (filtered)	Sulphate
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	µg/L	µg/L	mg/L	mg/L	%	mg/L	mg/L
LOR							0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.2	100	0.1	0.01	0.01	0.005	0.01		1	1	1	1	1	0.01	0.01	10	10	1	0.1	0.01	1	1
PFAS NEMP 2020 Drinking Water																																						
PFAS NEMP 2020 Freshwater 99%																																						
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																																		
MW043	13 Nov 2019	0902-MW043_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW043	11 May 2020	0902_MW043_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW043	10 Nov 2020	0902_MW043_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW043	03 May 2021	0902_MW043_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW043	23 Nov 2021	0902_MW043_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW043	25 May 2022	0902_MW043_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW043	02 Nov 2022	0902_MW043_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW043	15 May 2023	0902_MW043_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW044	06 Jul 2017	0902_MW44_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.04	-	0.02	-	<0.01	-	0.02	-	-	-	-	<0.01	-	-	-	<1	302	-	<1	302	16.3	16.6	-	700	357	0.5	1.07	9	-
MW044	07 May 2021	0902_MW044_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW044	07 May 2021	0902_QC205_210507	Interlab_D	RN1314562	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW045	06 Jul 2017	0902_MW45_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.06	-	<0.01	-	<0.01	-	<0.01	-	-	-	-	<0.01	-	-	-	<1	274	-	<1	274	17.6	18.2	-	900	424	0.6	1.76	8	-
MW045	13 Nov 2019	0902-MW045_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW045	12 May 2020	0902_MW045_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW045	10 Nov 2020	0902_MW045_201110	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW045	10 Nov 2020	0902_QC201_201110	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW045	07 May 2021	0902_MW045_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW045	21 Nov 2022	0902_MW045_221121	Normal	ES2242128	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW045	09 May 2023	0902_MW045_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW046	06 Jul 2017	0902_MW46_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.05	-	0.01	-	<0.01	-	0.01	-	-	-	-	<0.01	-	-	-	<1	239	-	<1	239	19.1	19.6	-	1,000	501	0.4	1.44	8	-
MW046	13 Nov 2019	0902-MW046_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW046	12 May 2020	0902_MW046_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW046	10 Nov 2020	0902_MW046_201110	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW046	04 May 2021	0902_MW046_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW046	22 Nov 2021	0902_MW046_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW046	22 Nov 2021	0902_QC201_211122	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW046	24 May 2022	0902_MW046_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW046	07 Nov 2022	0902_MW046_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW046	07 Nov 2022	0902_QC208_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW046	09 May 2023	0902_MW046_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW047	06 Jul 2017	0902_MW47_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	<0.01	-	106	-	0.11	-	106	-	-	-	-	0.03	-	-	-	<1	528	-	<1	528	43.5	48.6	-	3,200	1,060	1.6	5.55	145	-
MW047	13 Nov 2019	0902-MW047_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW047	11 May 2020	0902_MW047_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW047	10 Nov 2020	0902_MW047_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW047	03 May 2021	0902_MW047_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW047	23 Nov 2021	0902_MW047_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW047	25 May 2022	0902_MW047_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW047	02 Nov 2022	0902_MW047_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW047	15 May 2023	0902_MW047_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW048	05 Jul 2017	0902_MW48_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.02	-	3.26	-	<0.01	-	3.26	-	-	-	-	0.07	-	-	-	<1	222	-	<1	222	15.2	15.2	-	1,000	357	1.4	0.22	31	-
MW048	13 Nov 2019	0902-MW048_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW048	11 May 2020	0902_MW048_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW048	10 Nov 2020	0902_MW048_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW048	03 May 2021	0902_MW048_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW048	23 Nov 2021	0902_MW048_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW048	25 May 2022	0902_MW048_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW048	02 Nov 2022	0902_MW048_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW048	12 May 2023	0902_MW048_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	06 Jul 2017	0902_MW50_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.84	-	<0.01	-	<0.01	-	<0.01	-	-	-	-	<0.01	-	-	-	<1	122	-	<1	122	3.15	2.72	-	100	20	0.2	-	7	-
MW050	06 Jul 2017	0902_QC104_060717	Field_D	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-
MW050	13 Nov 2019	0902-MW050_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	15 May 2020	0902_MW050_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	15 May 2020	0902_QC107_200515	Field_D	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	10 Nov 2020	0902_MW050_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	03 May 2021	0902_MW050_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	23 Nov 2021	0902_MW050_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	23 Nov 2021	0902_QC203_211123	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	25 May 2022	0902_MW050_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	02 Nov 2022	0902_MW050_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW050	15 May 2023	0902_MW050_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051	06 Jul 2017	0902_MW51_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.90	-	0.09	-	<0.01	-	0.09	-	-	-	-	<0.01	-	-	-	<1	379	-	<1	379	8.34	7.98	-	400	16	0.2	2.18	15	-
MW051	13 Nov 2019	0902-MW051_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051	11 May 2020	0902_MW051_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051	10 Nov 2020	0902_MW051_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051	03 May 2021	0902_MW051_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051	03 May 2021	0902_QC200_210503	Interlab_D	RN1314562	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T4 - Groundwater Historical Analytical Results

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Table T4 - Groundwater Historical Analytical Results

								PFAS					PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids											PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
								Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR								0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water								**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%								*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																																
MW051	23 Nov 2021	0902_MW051_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		***39.4***	*239*	656	**895**	1,320	78.0	63.5	59.2	0.10	16.1	22.2	130	13.8	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.14	*<0.05*	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW051	25 May 2022	0902_MW051_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		***34.2***	*274*	519	**793**	1,120	48.5	64.2	64.6	0.07	12.7	12.3	81.5	11.3	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW051	02 Nov 2022	0902_MW051_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP		***65.3***	*660*	1,120	**1,780**	2,470	96.4	149	125	*<0.05*	20.8	36.2	175	21.3	0.50	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	0.24	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.05*
MW051	15 May 2023	0902_MW051_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		***60.9***	*530*	850	**1,380**	1,900	71.0	103	97.4	*<0.05*	23.5	30.4	120	17.5	0.40	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	0.20	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.05*
MW052	06 Jul 2017	0902_MW52_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		0.31	*0.20*	24.9	**25.1**	65.9	16.9	8.99	0.06	*<0.02*	*<0.1*	3.19	10.8	0.53	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	13 Nov 2019	0902-MW052_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		0.44	*0.22*	42.8	**43.0**	95.5	12.8	11.5	0.13	*<0.02*	2.1	3.89	20.4	1.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	11 May 2020	0902_MW052_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP		0.40	*0.26*	39.6	**39.9**	93.2	13.4	14.5	0.10	*<0.02*	1.9	3.14	18.7	1.21	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	10 Nov 2020	0902_MW052_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP		0.30	*0.19*	23.9	**24.1**	55.1	7.63	7.56	0.08	*<0.02*	1.5	2.21	11.0	0.75	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	03 May 2021	0902_MW052_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		0.36	*0.27*	14.2	**14.5**	34.8	5.03	4.54	0.16	*<0.02*	1.8	2.70	4.86	0.90	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	23 Nov 2021	0902_MW052_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		0.29	*0.33*	21.8	**22.1**	54.6	9.57	5.50	0.12	*<0.02*	1.4	2.20	12.7	0.67	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	25 May 2022	0902_MW052_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		0.04	*0.71*	0.82	**1.53**	2.49	0.25	0.24	0.04	*<0.02*	*<0.1*	0.05	0.32	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	02 Nov 2022	0902_MW052_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP		0.03	*0.42*	1.39	**1.81**	3.65	0.43	0.46	0.02	*<0.02*	*<0.1*	0.14	0.72	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW052	15 May 2023	0902_MW052_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.22	*2.11*	6.28	**8.39**	15.6	1.69	1.66	0.30	*<0.02*	0.3	0.54	2.33	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	03 Jul 2017	0902_MW53_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program		*<0.01*	*<0.01*	0.35	**0.35**	0.74	0.16	0.11	*<0.02*	*<0.02*	*<0.1*	0.04	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	14 Nov 2019	0902_MW053_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP		*<0.01*	*0.04*	0.08	**0.12**	0.17	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	13 May 2020	0902_MW053_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		0.09	*0.17*	0.76	**0.93**	1.62	0.12	0.11	0.03	*<0.02*	*<0.1*	0.08	0.21	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	11 Nov 2020	0902_MW053_201111	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP		0.07	*0.13*	0.67	**0.80**	1.37	0.11	0.11	0.02	*<0.02*	*<0.1*	0.07	0.15	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	11 Nov 2020	0902_QC202_201111	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP		0.05	*0.083*	0.48	**0.563**	-	0.078	0.079	0.012	*<0.01*	*<0.05*	0.052	0.12	0.036	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW053	03 May 2021	0902_MW053_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		0.07	*0.09*	0.18	**0.27**	1.26	0.09	0.03	*<0.02*	*<0.02*	0.2	0.24	0.29	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	24 Nov 2021	0902_MW053_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		0.04	*0.08*	0.12	**0.20**	0.52	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.08	0.14	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	26 May 2022	0902_MW053_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		0.13	*0.12*	0.35	**0.47**	1.28	0.05	0.04	*<0.02*	*<0.02*	0.2	0.09	0.20	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	10 Nov 2022	0902_MW053_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		0.10	*0.03*	2.00	**2.03**	2.98	0.20	0.29	*<0.02*	*<0.02*	*<0.1*	0.06	0.24	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW053	09 May 2023	0902_MW053_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.56	*0.06*	15.3	**15.4**	26.0	3.14	2.39	0.07	*<0.02*	0.4	0.68	2.88	0.56	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	30 Jun 2017	0902_MW54_300617	Normal	ES1716548	NSW_0902_PFAS	Early Works Program		*<0.01*	*<0.01*	0.09	**0.09**	0.18	0.06	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	14 Nov 2019	0902_MW054_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP		*<0.01*	*<0.01*	0.15	**0.15**	0.31	0.10	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	13 May 2020	0902_MW054_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		*<0.01*	*0.02*	0.29	**0.31**	0.97	0.38	0.08	*<0.02*	*<0.02*	*<0.1*	0.05	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	11 Nov 2020	0902_MW054_201111	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP		*<0.01*	*<0.01*	0.24	**0.24**	0.48	0.13	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	04 May 2021	0902_MW054_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		*<0.01*	*<0.01*	0.17	**0.17**	0.37	0.11	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	24 Nov 2021	0902_MW054_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		*<0.01*	*0.02*	0.16	**0.18**	0.36	0.14	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	24 May 2022	0902_MW054_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		*<0.01*	*<0.01*	0.22	**0.22**	0.41	0.09	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	24 May 2022	0902_QC100_220524	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		*<0.01*	*<0.01*	0.25	**0.25**	0.44	0.10	0.07	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	10 Nov 2022	0902_MW054_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		*<0.01*	*<0.01*	0.41	**0.41**	0.67	0.10	0.09	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW054	09 May 2023	0902_MW054_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		*<0.01*	*<0.01*	0.42	**0.42**	0.77	0.17	0.08	*<0.02*	*<0.02*	*<0.1*	0.03	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	04 Nov 2013	BH8-17	Normal	100160	ACTNSW_Hist_202009-2			*<0.02*	*<0.02*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	03 Jul 2017	0902_MW56_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program		*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	03 Jul 2017	0902_QC201_030717	Interlab_D	170815	NSW_0902_PFAS	Early Works Program		*<0.01*	*<0.01*	0.03	0.03	-	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW056	14 Nov 2019	0902_MW056_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP		*<0.01*	***0.01***	0.02	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	13 May 2020	0902_MW056_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	13 May 2020	0902_QC102_200513	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	13 Nov 2020	0902_MW056_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	07 May 2021	0902_MW056_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	24 Nov 2021	0902_MW056_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	24 Nov 2021	0902_QC106_211124	Field_D	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	25 May 2022	0902_MW056_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		*<0.01*	***0.02***	0.01	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	07 Nov 2022	0902_MW056_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		*<0.01*	***0.02***	0.01	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	07 Nov 2022	0902_QC105_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		*<0.01*	***0.01***	*<0.01*	0.01	0.01	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW056	07 Nov 2022	0902_QC203_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP		*<0.01*	***0.02***	0.01	0.03	0.03	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW056	09 May 2023	0902_MW056_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	04 Nov 2013	BH8-18	Normal	100160	ACTNSW_Hist_202009-2			*<0.02*	*<0.02*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	03 Jul 2017	0902_MW57_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program		*<0.05*	*0.13*	0.90	**1.03**	1.33	0.12	0.10	*<0.05*	*<0.05*	*<0.2*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW057	14 Nov 2019	0902_MW057_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP		0.03	*0.09*	0.70	**0.79**	1.15	0.11	0.09	*<0.02*	*<0.02*	*<0.1*	0.03	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	13 May 2020	0902_MW057_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		0.06	*0.08*	0.81	**0.89**	1.37	0.13	0.08	*<0.02*	*<0.02*	*<0.1*	0.06	0.12	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	13 May 2020	0902_QC103_200513	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		0.06	*0.08*	0.77	**0.85**	1.32	0.13	0.07	*<0.02*	*<0.02*	*<0.1*	0.06	0.12	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW057	11 Nov 2020	0902_MW057_201111	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP		0.06	*0.09*	0.69	**0.78**	1.13	0.10	0.05	*<0.02*	*<0.02*	*<0.1*	0.05	0.07	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02

Table T4 - Groundwater Historical Analytical Results

							Nutrients																Inorganics																	
							Ammonia	Ammonia as N	Ammonia as N (filtered)	Nitrate (as N)	Nitrate (as N) (filtered)	Nitrite (as N)	Nitrite (as N) (filtered)	Nitrite + Nitrate as N	Nitrogen (Total Oxidised)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Reactive Phosphorus as P	Reactive Phosphorus as P (Orthophosphate as P)	Total Phosphorus as P (Organic Phosphate as P)	Hardness (filtered)	Carbonate Alkalinity (as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Anions Total	Cations Total	Bromine	Bromine (filtered)	Chloride	Fluoride	Ionic Balance	Sulphate as SO4 - Turbidimetric (filtered)	Sulphate
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	µg/L	µg/L	mg/L	mg/L	%	mg/L	mg/L
LOR							0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.2	100	0.1	0.01	0.01	0.005	0.01		1	1	1	1	1	0.01	0.01	10	10	1	0.1	0.01	1	1
PFAS NEMP 2020 Drinking Water																																						
PFAS NEMP 2020 Freshwater 99%																																						
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																																		
MW051	23 Nov 2021	0902_MW051_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051	25 May 2022	0902_MW051_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051	02 Nov 2022	0902_MW051_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW051	15 May 2023	0902_MW051_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW052	06 Jul 2017	0902_MW52_060717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.01	-	1.81	-	*<0.01*	-	1.81	-	-	-	-	0.02	-	-	-	*<1*	1,150	-	*<1*	1,150	53.9	52.8	-	8,400	970	2.0	1.02	170	-
MW052	13 Nov 2019	0902-MW052_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW052	11 May 2020	0902_MW052_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW052	10 Nov 2020	0902_MW052_201110	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW052	03 May 2021	0902_MW052_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW052	23 Nov 2021	0902_MW052_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW052	25 May 2022	0902_MW052_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW052	02 Nov 2022	0902_MW052_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW052	15 May 2023	0902_MW052_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW053	03 Jul 2017	0902_MW53_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*<1*	156	-	*<1*	156	84.5	74.0	-	6,800	2,820	0.4	6.62	90	-
MW053	14 Nov 2019	0902_MW053_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW053	13 May 2020	0902_MW053_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW053	11 Nov 2020	0902_MW053_201111	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW053	11 Nov 2020	0902_QC202_201111	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW053	03 May 2021	0902_MW053_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW053	24 Nov 2021	0902_MW053_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW053	26 May 2022	0902_MW053_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW053	10 Nov 2022	0902_MW053_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW053	09 May 2023	0902_MW053_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054	30 Jun 2017	0902_MW54_300617	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*<1*	410	-	*<1*	410	26.0	24.6	-	2,000	591	1.2	2.64	53	-
MW054	14 Nov 2019	0902_MW054_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054	13 May 2020	0902_MW054_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054	11 Nov 2020	0902_MW054_201111	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054	04 May 2021	0902_MW054_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054	24 Nov 2021	0902_MW054_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054	24 May 2022	0902_MW054_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054	24 May 2022	0902_QC100_220524	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054	10 Nov 2022	0902_MW054_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW054	09 May 2023	0902_MW054_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	04 Nov 2013	BH8-17	Normal	100160	ACTNSW_Hist_202009-2		0.041	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	*<5*	*<5*	90	-	-	-	-	1,100	-	11	-	10
MW056	03 Jul 2017	0902_MW56_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*<1*	78	-	*<1*	78	33.0	33.5	-	2,800	1,110	0.1	0.72	9	-
MW056	03 Jul 2017	0902_QC201_030717	Interlab_D	170815	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	14 Nov 2019	0902_MW056_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	13 May 2020	0902_MW056_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	13 May 2020	0902_QC102_200513	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	13 Nov 2020	0902_MW056_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	07 May 2021	0902_MW056_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	24 Nov 2021	0902_MW056_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	24 Nov 2021	0902_QC106_211124	Field_D	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	25 May 2022	0902_MW056_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	07 Nov 2022	0902_MW056_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	07 Nov 2022	0902_QC105_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	07 Nov 2022	0902_QC203_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW056	09 May 2023	0902_MW056_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	04 Nov 2013	BH8-18	Normal	100160	ACTNSW_Hist_202009-2		0.017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	510	*<5*	*<5*	510	-	-	-	-	38	-	9.9	-	77
MW057	03 Jul 2017	0902_MW57_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*<1*	387	-	*<1*	387	9.60	10.2	-	300	28	0.4	2.83	52	-
MW057	14 Nov 2019	0902_MW057_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	13 May 2020	0902_MW057_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	13 May 2020	0902_QC103_200513	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	11 Nov 2020	0902_MW057_201111	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	04 May 2021	0902_MW057_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	24 Nov 2021	0902_MW057_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	31 May 2022	0902_MW057_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	10 Nov 2022	0902_MW057_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW057	09 May 2023	0902_MW057_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	04 Nov 2013	BH8-19	Normal	100160	ACTNSW_Hist_202009-2		0.061	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	280	*<5*	*<5*	280	-	-	-	-	1,100	-	8.1	-	25
MW058	30 Jun 2017	0902_MW58_300617	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*<1*	287	-	*<1*	287	36.5	36.9	-	3,300	1,070	0.3	0.62	27	-
MW058	14 Nov 2019	0902_MW058_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	14 Nov 2019	0902_QC202_191114	Interlab_D	RN1253933	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	13 May 2020	0902_MW058_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	11 Nov 2020	0902_MW058_201111	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	04 May 2021	0902_MW058_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T4 - Groundwater Historical Analytical Results

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Table T4 - Groundwater Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																												
MW058	24 Nov 2021	0902_MW058_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	**0.59**	*0.05*	5.63	**5.68**	13.7	1.94	1.23	0.05	<0.02	0.3	0.46	3.03	0.42	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW058	09 Aug 2022	0902_MW058_220809	Normal	ES2228275	NSW_0902_PFASMGMT	Ad Hoc	**0.65**	*0.05*	5.38	**5.43**	15.6	2.21	2.05	0.11	<0.02	0.4	0.69	3.51	0.59	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW058	10 Nov 2022	0902_MW058_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	0.30	*0.26*	2.10	**2.36**	6.65	0.92	0.73	0.06	<0.02	0.2	0.32	1.50	0.26	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW058	09 May 2023	0902_MW058_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	**0.61**	*0.02*	11.7	**11.7**	25.7	3.47	2.39	0.06	<0.02	0.5	1.11	4.82	1.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	05 Nov 2013	BH8-26	Normal	100306	ACTNSW_Hist_202009-2		<0.02	<0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	03 Jul 2017	0902_MW59_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	<0.01	*0.01*	1.96	**1.97**	6.98	2.20	1.21	<0.02	<0.02	<0.1	0.34	1.17	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	03 Jul 2017	0902_QC101_030717	Field_D	ES1716548	NSW_0902_PFAS	Early Works Program	<0.01	*0.01*	1.96	**1.97**	6.99	2.22	1.20	<0.02	<0.02	<0.1	0.33	1.18	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	14 Nov 2019	0902_MW059_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	0.06	*0.11*	3.91	**4.02**	14.0	2.72	2.40	<0.02	<0.02	0.3	0.63	3.54	0.32	0.03	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	14 Nov 2019	0902_QC105_191114	Field_D	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	0.07	*0.16*	5.04	**5.20**	17.8	3.68	2.89	<0.02	<0.02	0.2	0.75	4.54	0.40	0.03	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	15 May 2020	0902_MW059_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.01	<0.01	0.07	0.07	0.18	0.04	0.03	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	13 Nov 2020	0902_MW059_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.02	*0.01*	3.34	**3.35**	11.6	2.09	2.02	<0.02	<0.02	0.3	0.50	2.98	0.32	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	07 May 2021	0902_MW059_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	0.03	*0.07*	3.92	**3.99**	15.5	2.96	2.62	<0.02	<0.02	0.5	0.91	3.98	0.52	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	29 Nov 2021	0902_MW059_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.02	*0.08*	2.68	**2.76**	12.2	3.07	1.77	<0.02	<0.02	0.4	0.61	3.28	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	31 May 2022	0902_MW059_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.03	*0.04*	3.81	**3.85**	13.1	2.72	2.38	<0.02	<0.02	0.4	0.43	2.92	0.37	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	07 Nov 2022	0902_MW059_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.03	*0.10*	5.01	**5.11**	17.6	3.52	2.90	<0.02	<0.02	0.6	0.80	4.22	0.47	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW059	07 Nov 2022	0902_QC205_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	0.02	*0.07*	4.3	**4.3**	15	3.0	2.8	<0.01	<0.02	0.53	0.66	2.9	0.40	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW059	09 May 2023	0902_MW059_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.03	*0.06*	5.98	**6.04**	19.9	4.54	2.64	<0.02	<0.02	0.5	1.08	4.49	0.58	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW060	05 Jul 2017	0902_MW60_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	0.10	*0.73*	2.98	**3.71**	4.81	0.24	0.36	0.09	<0.02	<0.1	<0.02	0.25	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW060	14 Nov 2019	0902_MW060_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	0.09	*0.44*	1.94	**2.38**	3.35	0.17	0.23	0.07	<0.02	<0.1	0.06	0.31	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW060	12 May 2020	0902_MW060_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.10	*0.52*	2.20	**2.72**	3.77	0.19	0.23	0.09	<0.02	<0.1	0.06	0.33	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW060	11 Nov 2020	0902_MW060_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	0.07	*0.44*	1.65	**2.09**	2.95	0.14	0.23	0.07	<0.02	<0.1	0.05	0.26	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW060	04 May 2021	0902_MW060_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.10	*0.54*	2.04	**2.58**	3.66	0.19	0.25	0.08	<0.02	<0.1	0.07	0.34	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW060	04 May 2021	0902_QC201_210504	Interlab_D	RN1314562	NSW_0902_PFASOMP	202105_AECOM_OMP	0.075	*0.4*	1.9	**2.3**	-	0.18	0.21	0.045	<0.01	<0.05	0.059	0.27	0.039	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW060	24 Nov 2021	0902_MW060_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.05	*0.23*	0.45	**0.68**	0.95	0.05	0.04	0.02	<0.02	<0.1	<0.02	0.09	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW060	25 May 2022	0902_MW060_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.08	*0.39*	1.58	**1.97**	2.79	0.16	0.20	0.06	<0.02	<0.1	0.04	0.24	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW060	07 Nov 2022	0902_MW060_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.04	*0.23*	0.18	**0.41**	0.55	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW060	07 Nov 2022	0902_QC107_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.04	*0.14*	0.16	**0.30**	0.43	<0.02	<0.02	<0.02	<0.02	<0.1	0.03	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW060	07 Nov 2022	0902_QC207_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	0.03	*0.14*	0.16	**0.31**	0.55	0.02	0.02	0.01	<0.02	0.06	0.03	0.05	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW060	09 May 2023	0902_MW060_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.04	*0.21*	0.87	**1.08**	1.57	0.10	0.10	0.03	<0.02	<0.1	0.04	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW061	05 Jul 2017	0902_MW61_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	0.10	*1.02*	1.43	**2.45**	3.05	0.12	0.12	0.04	<0.02	<0.1	<0.02	0.13	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW061	14 Nov 2019	0902_MW061_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	0.15	*1.30*	2.31	**3.61**	4.93	0.24	0.26	0.11	<0.02	<0.1	0.10	0.40	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW061	12 May 2020	0902_MW061_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.06	*0.61*	0.86	**1.47**	2.10	0.15	0.06	0.04	<0.02	<0.1	0.10	0.18	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW061	11 Nov 2020	0902_MW061_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	0.03	*0.38*	0.32	**0.70**	0.94	0.04	0.03	<0.02	<0.02	<0.1	0.04	0.07	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW061	04 May 2021	0902_MW061_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.04	*0.71*	0.37	**1.08**	1.59	0.06	0.04	<0.02	<0.02	<0.1	0.23	0.10	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW061	24 Nov 2021	0902_MW061_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.04	*0.27*	0.41	**0.68**	1.08	0.07	0.04	<0.02	<0.02	<0.1	0.08	0.14	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW061	25 May 2022	0902_MW061_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.05	*0.34*	0.37	**0.71**	1.07	0.06	0.04	<0.02	<0.02	<0.1	0.06	0.11	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW061	07 Nov 2022	0902_MW061_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.06	*0.40*	0.48	**0.88**	1.34	0.06	0.05	<0.02	<0.02	<0.1	0.08	0.16	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW061	09 May 2023	0902_MW061_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.05	*0.21*	0.39	**0.60**	0.97	0.07	0.04	<0.02	<0.02	<0.1	0.08	0.10	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW062	05 Jul 2017	0902_MW62_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	0.01	*0.51*	0.31	**0.82**	0.92	0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW062	05 Jul 2017	0902_QC203_050717	Interlab_D	170907	NSW_0902_PFAS	Early Works Program	<0.01	*0.08*	0.14	**0.22**	-	0.03	0.05	<0.01	<0.02	<0.02	<0.02	0.03	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW062	14 Nov 2019	0902_MW062_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.05	*0.28*	0.20	**0.48**	0.48	<0.05	<0.05	<0.05	<0.05	<0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW062	12 May 2020	0902_MW062_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.01	*0.64*	0.31	**0.95**	1.08	<0.02	0.02	0.02	<0.02	<0.1	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW062	11 Nov 2020	0902_MW062_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	0.01	*0.43*	0.23	**0.66**	0.76	<0.02	<0.02	<0.02	<0.02	<0.1	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW062	04 May 2021	0902_MW062_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.01	*0.30*	0.14	**0.44**	0.44	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW062	22 Nov 2021	0902_MW062_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	*0.28*	0.14	**0.42**	0.46	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW062	27 May 2022	0902_MW062_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	*0.33*	0.07	**0.40**	0.49	<0.02	<0.02	<0.02	<0.02	<0.1	0.04	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW062	03 Nov 2022	0902_MW062_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.01	*0.57*	0.12	**0.69**	0.88	<0.02	<0.02	<0.02	<0.02	<0.1	0.10	0.07	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW062	09 May 2023	0902_MW062_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.01	*0.58*	0.23	**0.81**	1.22	0.05	<0.02	<0.02	<0.02	<0.1	0.19	0.13	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	05 Jul 2017	0902_MW63_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	**1.08**	*1.47*	20.0	**21.5**	36.2	4.92	2.96	1.16	<0.02	<0.1	0.94	3.33	0.33	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	05 Jul 2017	0902_QC204_050717	Interlab_D	170907	NSW_0902_PFAS	Early Works Program	**0.65**	*1.6*	19	**20.6**	-	5.8	6.0	1.6	<0.02	<0.2	0.31	3.4	0.24	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.02	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW063	14 Nov 2019	0902_MW063_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	**0.58**	*1.51*	9.40	**10.9**	18.4	1.60	1.60	0.57	<0.02	0.2	0.42	2.26	0.26	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	12 May 2020	0902_MW063_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	**0.63**	*1.37*	8.22	**9.59**	18.0	1.78	1.68	0.74	<0.02	0.3	0.48	2.49	0.33	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	11 Nov 2020	0902_MW063_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	0.39	*1.68*	7.31	**8.99**	14.6	1.12	1.22	0.48	<0.02	0.2	0.32	1.63	0.21	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	04 May 2021	0902_MW063_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.54	*2.76*	6.74	**9.50**	18.0	1.95	1.83	0.83	<0.02	0.3	0.46	2.33	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	22 Nov 2021	0902_MW063_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	0.05	*0.22*	1.06	**1.28**	2.80	0.36	0.24	0.02	<0.02	<0.1	0.17	0.60	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	27 May 2022	0902_MW063_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.46	*2.49*	7.26	**9.75**	16.8	1.43	1.54	0.41	<0.02	0.3	0.36	2.19	0.35	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	03 Nov 2022	0902_MW063_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.55	*4.43*	11.2	**15.6**	25.5	1.66	2.28	0.65	<0.02	0.4	0.65	3.20	0.45	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW063	09 May 2023	0902_MW063_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.56	*0.62*	8.74	**9.36**	17.6	1.69	1.13	0.21	<0.02	0.2	0.79	3.06	0.49	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Table T4 - Groundwater Historical Analytical Results

							Nutrients																Inorganics																	
							Ammonia	Ammonia as N	Ammonia as N (filtered)	Nitrate (as N)	Nitrate (as N) (filtered)	Nitrite (as N)	Nitrite (as N) (filtered)	Nitrite + Nitrate as N	Nitrogen (Total Oxidised)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Reactive Phosphorus as P	Reactive Phosphorus as P (Orthophosphate as P)	Total Phosphorus as P (Organic Phosphate as P)	Hardness (filtered)	Carbonate Alkalinity (as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Anions Total	Cations Total	Bromine	Bromine (filtered)	Chloride	Fluoride	Ionic Balance	Sulphate as SO4 - Turbidimetric (filtered)	Sulphate
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	µg/L	µg/L	mg/L	mg/L	%	mg/L	mg/L
LOR							0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.2	100	0.1	0.01	0.01	0.005	0.01		1	1	1	1	1	0.01	0.01	10	10	1	0.1	0.01	1	1
PFAS NEMP 2020 Drinking Water																																						
PFAS NEMP 2020 Freshwater 99%																																						
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																																		
MW058	24 Nov 2021	0902_MW058_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	09 Aug 2022	0902_MW058_220809	Normal	ES2228275	NSW_0902_PFASMGMT	Ad Hoc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	10 Nov 2022	0902_MW058_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	09 May 2023	0902_MW058_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	05 Nov 2013	BH8-26	Normal	100306	ACTNSW_Hist_202009-2		*<0.005*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	*<5*	*<5*	160	-	-	-	2,100	-	4.1	-	15
MW059	03 Jul 2017	0902_MW59_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*<1*	147	-	*<1*	147	50.3	58.3	-	4,200	1,670	0.2	7.38	13	-
MW059	03 Jul 2017	0902_QC101_030717	Field_D	ES1716548	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	14 Nov 2019	0902_MW059_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	14 Nov 2019	0902_QC105_191114	Field_D	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	15 May 2020	0902_MW059_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	13 Nov 2020	0902_MW059_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	07 May 2021	0902_MW059_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	29 Nov 2021	0902_MW059_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	31 May 2022	0902_MW059_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	07 Nov 2022	0902_MW059_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	07 Nov 2022	0902_QC205_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	09 May 2023	0902_MW059_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	05 Jul 2017	0902_MW60_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.01	-	0.31	-	*<0.01*	-	0.31	-	-	-	-	0.01	-	-	-	-	*<1*	179	-	*<1*	179	25.9	24.0	-	1,900	776	0.2	3.71	20	-
MW060	14 Nov 2019	0902_MW060_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	12 May 2020	0902_MW060_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	11 Nov 2020	0902_MW060_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	04 May 2021	0902_MW060_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	04 May 2021	0902_QC201_210504	Interlab_D	RN1314562	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	24 Nov 2021	0902_MW060_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	25 May 2022	0902_MW060_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	07 Nov 2022	0902_MW060_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	07 Nov 2022	0902_QC107_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	07 Nov 2022	0902_QC207_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	09 May 2023	0902_MW060_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	05 Jul 2017	0902_MW61_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.10	-	*<0.01*	-	*<0.01*	-	*<0.01*	-	-	-	-	*<0.01*	-	-	-	-	*<1*	437	-	*<1*	437	9.91	9.65	-	200	39	0.4	1.37	4	-
MW061	14 Nov 2019	0902_MW061_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	12 May 2020	0902_MW061_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	11 Nov 2020	0902_MW061_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	04 May 2021	0902_MW061_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	24 Nov 2021	0902_MW061_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	25 May 2022	0902_MW061_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	07 Nov 2022	0902_MW061_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	09 May 2023	0902_MW061_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	05 Jul 2017	0902_MW62_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.07	-	0.47	-	*<0.01*	-	0.47	-	-	-	-	0.02	-	-	-	-	*<1*	804	-	*<1*	804	161	158	-	11,900	4,960	0.9	0.94	256	-
MW062	05 Jul 2017	0902_QC203_050717	Interlab_D	170907	NSW_0902_PFAS	Early Works Program	*<0.01*	-	-	0.42	-	0.046	-	-	-	-	-	-	-	0.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	14 Nov 2019	0902_MW062_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	12 May 2020	0902_MW062_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	11 Nov 2020	0902_MW062_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	04 May 2021	0902_MW062_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	22 Nov 2021	0902_MW062_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	27 May 2022	0902_MW062_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	03 Nov 2022	0902_MW062_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	09 May 2023	0902_MW062_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	05 Jul 2017	0902_MW63_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.03	-	*<0.01*	-	*<0.01*	-	*<0.01*	-	-	-	-	*<0.01*	-	-	-	-	*<1*	73	-	*<1*	73	20.9	21.0	-	1,800	687	0.2	0.35	3	-
MW063	05 Jul 2017	0902_QC204_050717	Interlab_D	170907	NSW_0902_PFAS	Early Works Program	*<0.005*	-	-	*<0.05*	-	*<0.05*	-	-	-	-	-	-	-	0.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	14 Nov 2019	0902_MW063_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	12 May 2020	0902_MW063_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	11 Nov 2020	0902_MW063_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	04 May 2021	0902_MW063_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	22 Nov 2021	0902_MW063_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	27 May 2022	0902_MW063_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	03 Nov 2022	0902_MW063_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	09 May 2023	0902_MW063_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	09 May 2023	0902_QC104_230509	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	09 May 2023	0902_QC204_230509	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064	04 Jul 2017	0902_MW64_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.04	-	*<0.01*	-	*<0.01*	-	*<0.01*	-	-	-	-	*<0.01*	-	-	-	-	*<1*	302	-	*<1*	302	15.0	14.4	-	800	308	0.6	2.01	12	-
MW064	13 Nov 2019	0902-MW064_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064	11 May 2020	0902_MW064_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064	10 Nov 2020	0902_MW064_201110	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064	04 May 2021	0902_MW064_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064	22 Nov 2021	0902_MW064_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T4 - Groundwater Historical Analytical Results

																																	Metals
								TDS	TDS (filtered)	Total Suspended Solids	Aluminium	Aluminium (filtered)	Arsenic	Arsenic (filtered)	Barium (filtered)	Beryllium (filtered)	Boron (filtered)	Cadmium (filtered)	Calcium (filtered)	Chromium (III+VI) (filtered)	Copper (filtered)	Iron	Iron (filtered)	Lead (filtered)	Magnesium (filtered)	Manganese	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Potassium (filtered)	Sodium (filtered)	Vanadium (filtered)	Zinc (filtered)
								mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR								5	5	5	0.01	0.01	0.001	0.001	0.001	0.0005	0.02	0.0001	0.5	0.001	0.001	0.01	0.01	0.001	0.5	0.001	0.001	0.00005	0.001	0.5	0.5	0.001	0.001
PFAS NEMP 2020 Drinking Water																																	
PFAS NEMP 2020 Freshwater 99%																																	
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																											
MW058	24 Nov 2021	0902_MW058_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	09 Aug 2022	0902_MW058_220809	Normal	ES2228275	NSW_0902_PFASMGMT	Ad Hoc		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	10 Nov 2022	0902_MW058_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW058	09 May 2023	0902_MW058_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	05 Nov 2013	BH8-26	Normal	100306	ACTNSW_Hist_202009-2			-	-	-	-	-	-	*<0.001*	1.1	*<0.0005*	-	0.0008	95	*<0.001*	0.002	-	0.022	*<0.001*	210	-	0.016	*<0.00005*	0.008	1.3	1,000	*<0.001*	0.016
MW059	03 Jul 2017	0902_MW59_030717	Normal	ES1716548	NSW_0902_PFAS	Early Works Program		-	3,960	-	-	0.01	-	*<0.001*	-	-	-	0.0001	88	*<0.001*	*<0.001*	-	*<0.05*	*<0.001*	194	-	0.038	*<0.0001*	0.028	*<1*	873	-	0.057
MW059	03 Jul 2017	0902_QC101_030717	Field_D	ES1716548	NSW_0902_PFAS	Early Works Program		-	-	-	-	-	-	*<0.001*	-	-	-	0.0002	89	*<0.001*	*<0.001*	-	-	*<0.001*	194	-	-	*<0.0001*	0.030	*<1*	859	-	0.058
MW059	14 Nov 2019	0902_MW059_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	14 Nov 2019	0902_QC105_191114	Field_D	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	15 May 2020	0902_MW059_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	13 Nov 2020	0902_MW059_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	07 May 2021	0902_MW059_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	29 Nov 2021	0902_MW059_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	31 May 2022	0902_MW059_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	07 Nov 2022	0902_MW059_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	07 Nov 2022	0902_QC205_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW059	09 May 2023	0902_MW059_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	05 Jul 2017	0902_MW60_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		-	2,130	-	-	0.01	-	*<0.001*	-	-	-	*<0.0001*	74	*<0.001*	*<0.001*	-	*<0.05*	*<0.001*	74	-	0.120	*<0.0001*	0.018	1	327	-	0.010
MW060	14 Nov 2019	0902_MW060_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	12 May 2020	0902_MW060_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	11 Nov 2020	0902_MW060_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	04 May 2021	0902_MW060_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	04 May 2021	0902_QC201_210504	Interlab_D	RN1314562	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	24 Nov 2021	0902_MW060_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	25 May 2022	0902_MW060_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	07 Nov 2022	0902_MW060_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	07 Nov 2022	0902_QC107_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	07 Nov 2022	0902_QC207_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW060	09 May 2023	0902_MW060_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	05 Jul 2017	0902_MW61_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		-	545	-	-	0.02	-	0.010	-	-	-	*<0.0001*	37	*<0.001*	*<0.001*	-	19.3	*<0.001*	41	-	4.22	*<0.0001*	0.016	3	100	-	0.024
MW061	14 Nov 2019	0902_MW061_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	12 May 2020	0902_MW061_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	11 Nov 2020	0902_MW061_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	04 May 2021	0902_MW061_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	24 Nov 2021	0902_MW061_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	25 May 2022	0902_MW061_220525	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	07 Nov 2022	0902_MW061_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW061	09 May 2023	0902_MW061_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	05 Jul 2017	0902_MW62_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		-	9,850	-	-	*<0.01*	-	*<0.001*	-	-	-	*<0.0001*	263	*<0.001*	*<0.001*	-	0.31	*<0.001*	441	-	0.309	*<0.0001*	0.023	6	2,500	-	*<0.005*
MW062	05 Jul 2017	0902_QC203_050717	Interlab_D	170907	NSW_0902_PFAS	Early Works Program		-	-	-	-	*<0.01*	-	*<0.001*	-	-	-	0.0001	-	*<0.001*	*<0.001*	-	0.34	*<0.001*	-	-	0.38	*<0.00005*	0.021	-	-	-	0.005
MW062	14 Nov 2019	0902_MW062_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	12 May 2020	0902_MW062_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	11 Nov 2020	0902_MW062_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	04 May 2021	0902_MW062_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	22 Nov 2021	0902_MW062_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	27 May 2022	0902_MW062_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	03 Nov 2022	0902_MW062_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW062	09 May 2023	0902_MW062_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	05 Jul 2017	0902_MW63_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		-	1,430	-	-	*<0.01*	-	*<0.001*	-	-	-	*<0.0001*	36	*<0.001*	*<0.001*	-	0.44	*<0.001*	78	-	0.708	*<0.0001*	0.108	*<1*	295	-	0.019
MW063	05 Jul 2017	0902_QC204_050717	Interlab_D	170907	NSW_0902_PFAS	Early Works Program		-	-	-	-	*<0.01*	-	*<0.001*	-	-	-	*<0.0001*	-	*<0.001*	*<0.001*	-	0.57	*<0.001*	-	-	0.82	*<0.00005*	0.12	-	-	-	0.022
MW063	14 Nov 2019	0902_MW063_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	12 May 2020	0902_MW063_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	11 Nov 2020	0902_MW063_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	04 May 2021	0902_MW063_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	22 Nov 2021	0902_MW063_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	27 May 2022	0902_MW063_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	03 Nov 2022	0902_MW063_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	09 May 2023	0902_MW063_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	09 May 2023	0902_QC104_230509	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW063	09 May 2023	0902_QC204_230509	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064	04 Jul 2017	0902_MW64_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		-	1,810	-	-	*<0.01*	-	*<0.001*	-	-	-	*<0.0001*	25	*<0.001*	*<0.001*	-	0.10	*<0.001*	28	-	0.437	*<0.0001*	0.012	*<1*	249	-	*<0.005*
MW064	13 Nov 2019	0902-MW064_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064	11 May 2020	0902_MW064_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064	10 Nov 2020	0902_MW064_201110	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064	04 May 2021	0902_MW064_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW064	22 Nov 2021	0902_MW064_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T4 - Groundwater Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																													
MW064	24 May 2022	0902_MW064_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.02	*0.30*	0.71	**1.01**	1.27	0.08	0.10	0.04	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW064	24 May 2022	0902_QC200_220524	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	0.02	*0.27*	0.59	**0.86**	1.1	0.08	0.09	0.03	*<0.02*	0.02	*<0.02*	0.02	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW064	02 Nov 2022	0902_MW064_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	0.01	*0.17*	0.36	**0.53**	0.66	0.05	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW064	09 May 2023	0902_MW064_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.01	*0.13*	0.43	**0.56**	0.74	0.09	0.06	0.02	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	04 Jul 2017	0902_MW65_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	*<0.01*	*0.05*	0.42	**0.47**	0.59	0.06	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	13 Nov 2019	0902-MW065_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*0.03*	0.30	**0.33**	0.40	0.03	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	11 May 2020	0902_MW065_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.02*	0.24	**0.26**	0.33	0.03	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	11 May 2020	0902_QC200_200511	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*<0.02*	0.2	**0.2**	-	0.028	0.03	*<0.01*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW065	10 Nov 2020	0902_MW065_201110	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*0.02*	0.18	**0.20**	0.27	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	04 May 2021	0902_MW065_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*0.02*	0.24	**0.26**	0.34	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	22 Nov 2021	0902_MW065_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.01*	0.18	**0.19**	0.26	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	22 Nov 2021	0902_QC101_211122	Field_D	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.01*	0.25	**0.26**	0.35	0.05	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	24 May 2022	0902_MW065_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*0.01*	0.29	**0.30**	0.42	0.07	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	02 Nov 2022	0902_MW065_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.02*	0.39	**0.41**	0.54	0.06	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW065	09 May 2023	0902_MW065_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*<0.01*	0.36	**0.36**	0.49	0.08	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	04 Jul 2017	0902_MW66_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	*<0.01*	*0.18*	0.66	**0.84**	1.09	0.11	0.10	0.02	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	13 Nov 2019	0902-MW066_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	0.02	*0.35*	0.78	**1.13**	1.42	0.08	0.09	0.04	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	11 May 2020	0902_MW066_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	0.02	*0.31*	0.73	**1.04**	1.31	0.07	0.10	0.03	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	10 Nov 2020	0902_MW066_201110	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	0.02	*0.27*	0.65	**0.92**	1.16	0.07	0.08	0.03	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	04 May 2021	0902_MW066_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.02	*0.37*	0.85	**1.22**	1.60	0.13	0.12	0.04	*<0.02*	*<0.1*	*<0.02*	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	22 Nov 2021	0902_MW066_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	0.02	*0.25*	0.62	**0.87**	1.16	0.11	0.09	0.02	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	24 May 2022	0902_MW066_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.02	*0.41*	0.74	**1.15**	1.45	0.09	0.11	0.04	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	24 May 2022	0902_QC102_220524	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.02	*0.49*	0.97	**1.46**	1.80	0.10	0.13	0.04	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	02 Nov 2022	0902_MW066_221102	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	0.02	*0.52*	0.77	**1.29**	1.61	0.10	0.10	0.04	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW066	09 May 2023	0902_MW066_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*0.02*	0.04	0.06	0.08	*<0.02*	*<0.02*	0.02	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	05 Jul 2017	0902_MW67_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	*<0.01*	*0.01*	0.02	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	14 Nov 2019	0902_MW067_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*0.01*	0.03	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	15 May 2020	0902_MW067_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.02*	0.04	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	15 May 2020	0902_QC110_200515	Field_D	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.01*	0.03	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	11 Nov 2020	0902_MW067_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	05 May 2021	0902_MW067_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*0.01*	0.03	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	22 Nov 2021	0902_MW067_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.01*	0.03	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	26 May 2022	0902_MW067_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*0.02*	0.03	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	03 Nov 2022	0902_MW067_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.02*	0.04	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW067	09 May 2023	0902_MW067_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*<0.01*	0.03	0.03	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	05 Jul 2017	0902_MW68_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	0.06	*0.32*	2.00	**2.32**	2.93	0.12	0.22	0.05	*<0.02*	*<0.1*	*<0.02*	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	14 Nov 2019	0902_MW068_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*0.04*	0.24	**0.28**	0.33	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	12 May 2020	0902_MW068_200512	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.02	*0.08*	0.44	**0.52**	0.65	0.02	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	11 Nov 2020	0902_MW068_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	0.02	*0.11*	0.63	**0.74**	0.97	0.04	0.07	0.02	*<0.02*	*<0.1*	*<0.02*	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	04 May 2021	0902_MW068_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.07	*0.30*	1.85	**2.15**	2.97	0.19	0.19	0.07	*<0.02*	*<0.1*	0.05	0.23	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	23 Nov 2021	0902_MW068_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	0.07	*0.33*	1.68	**2.01**	2.69	0.13	0.15	0.05	*<0.02*	*<0.1*	0.03	0.22	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	26 May 2022	0902_MW068_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.21	*1.14*	3.87	**5.01**	6.73	0.29	0.45	0.15	*<0.02*	*<0.1*	0.07	0.48	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	26 May 2022	0902_QC206_220526	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	0.20	*0.88*	3.6	**4.5**	6.4	0.34	0.42	0.15	*<0.02*	0.06	0.1	0.53	0.08	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW068	03 Nov 2022	0902_MW068_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.25	*1.75*	6.64	**8.39**	10.9	0.41	0.66	0.23	*<0.02*	*<0.1*	0.14	0.71	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	09 May 2023	0902_MW068_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.18	*0.90*	3.38	**4.28**	6.12	0.37	0.41	0.12	*<0.02*	*<0.1*	0.14	0.54	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	09 May 2023	0902_QC103_230509	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.22	*1.35*	3.95	**5.30**	7.19	0.29	0.48	0.15	*<0.02*	*<0.1*	0.12	0.55	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW068	09 May 2023	0902_QC203_230509	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.18	*1.1*	4.2	**5.3**	7.2	0.30	0.43	0.15	*<0.02*	0.07	0.1	0.54	0.07	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW069	05 Jul 2017	0902_MW69_050717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	0.03	*0.65*	0.37	**1.02**	1.20	0.07	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	14 Nov 2019	0902_MW069_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	0.03	*0.50*	0.32	**0.82**	1.01	0.05	0.04	*<0.02*	*<0.02*	*<0.1*	0.02	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	15 May 2020	0902_MW069_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.05	*0.73*	0.42	**1.15**	1.43	0.08	0.05	0.02	*<0.02*	*<0.1*	0.02	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	15 May 2020	0902_QC210_200515	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	0.024	*0.32*	0.24	**0.56**	–	0.041	0.026	*<0.01*	*<0.01*	*<0.05*	*<0.02*	0.035	0.012	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW069	11 Nov 2020	0902_MW069_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	0.02	*0.40*	0.23	**0.63**	0.76	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	05 May 2021	0902_MW069_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.01	*0.20*	0.15	**0.35**	0.42	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW069	23 Nov 2021	0902_MW069_211123	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	0.03	*0.36*	0.28	**0.64**	0.83	0.08	0.03

Table T4 - Groundwater Historical Analytical Results

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Table T4 - Groundwater Historical Analytical Results

Table T4 - Groundwater Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																									
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																												
MW070	03 Nov 2022	0902_MW070_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.06	*1.24*	0.53	**1.77**	2.41	0.13	0.07	0.03	*<0.02*	*<0.1*	0.12	0.17	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW070	09 May 2023	0902_MW070_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.07	*0.75*	0.47	**1.22**	1.83	0.15	0.05	0.03	*<0.02*	*<0.1*	0.12	0.13	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	04 Jul 2017	0902_MW71_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	0.09	*1.72*	0.32	**2.04**	2.79	0.38	0.02	0.03	*<0.02*	*<0.1*	0.11	0.09	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	14 Nov 2019	0902_MW071_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	0.08	*1.76*	0.59	**2.35**	3.22	0.16	0.07	0.04	*<0.02*	0.1	0.18	0.19	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	15 May 2020	0902_MW071_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.10	*2.98*	0.65	**3.63**	5.00	0.36	0.09	0.06	*<0.02*	0.1	0.30	0.27	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	15 May 2020	0902_QC111_200515	Field_D	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.06	*1.93*	0.45	**2.38**	3.24	0.26	0.06	0.04	*<0.02*	*<0.1*	0.20	0.18	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	13 Nov 2020	0902_MW071_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.05	*1.53*	0.36	**1.89**	2.45	0.13	0.04	0.03	*<0.02*	*<0.1*	0.13	0.14	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	04 May 2021	0902_MW071_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.03	*1.00*	0.31	**1.31**	1.93	0.30	0.04	0.02	*<0.02*	*<0.1*	0.11	0.10	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	22 Nov 2021	0902_MW071_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	0.05	*1.07*	0.34	**1.41**	1.91	0.15	0.03	0.03	*<0.02*	*<0.1*	0.09	0.11	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	26 May 2022	0902_MW071_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.03	*0.75*	0.25	**1.00**	1.34	0.11	0.03	*<0.02*	*<0.02*	*<0.1*	0.05	0.09	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	03 Nov 2022	0902_MW071_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.04	*1.08*	0.32	**1.40**	1.75	0.06	0.04	0.02	*<0.02*	*<0.1*	0.06	0.09	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW071	09 May 2023	0902_MW071_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.04	*0.73*	0.30	**1.03**	1.45	0.10	0.03	0.03	*<0.02*	*<0.1*	0.10	0.09	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	04 Jul 2017	0902_MW72_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	**3.94**	*14.6*	80.0	**94.6**	156	21.5	11.4	4.64	*<0.02*	1.3	3.67	14.5	0.77	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	13 Nov 2019	0902-MW072_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	**4.20**	*13.9*	92.6	**106**	178	19.2	15.0	6.24	*<0.02*	2.4	3.36	19.4	1.77	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	11 May 2020	0902_MW072_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	**3.76**	*14.0*	106	**120**	192	16.6	23.8	3.26	*<0.05*	2.2	3.26	17.6	1.85	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW072	11 Nov 2020	0902_MW072_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	**2.80**	*14.2*	70.3	**84.5**	141	15.5	13.4	3.02	*<0.02*	2.2	2.72	15.4	1.57	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	05 May 2021	0902_MW072_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	**1.90**	*12.8*	51.5	**64.3**	100	11.0	8.58	2.12	*<0.02*	0.5	1.74	8.85	1.00	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	24 Nov 2021	0902_MW072_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	**4.16**	*25.6*	104	**130**	205	21.6	15.4	4.15	*<0.02*	2.6	3.80	21.4	2.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	24 May 2022	0902_MW072_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	**2.14**	*32.1*	36.4	**68.5**	93.4	6.20	5.43	2.36	*<0.02*	0.9	0.84	6.22	0.83	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW072	10 Nov 2022	0902_MW072_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	**5.04**	*110*	103	**213**	273	13.0	13.2	6.69	*<0.05*	2.3	2.86	15.6	1.74	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW072	15 May 2023	0902_MW072_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	**3.64**	*48.3*	81.8	**130**	172	8.79	8.40	3.77	*<0.02*	1.6	2.90	11.7	1.35	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	04 Jul 2017	0902_MW73_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	**1.39**	*3.70*	32.0	**35.7**	51.7	3.21	4.20	0.85	*<0.02*	*<0.1*	0.93	4.89	0.57	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	28 Nov 2019	0902_MW073_191128	Normal	ES1939504	NSW_0902_PFASOMP	201911_AECOM_OMP	**2.38**	*4.70*	40.4	**45.1**	80.2	5.38	9.52	1.93	*<0.02*	0.3	2.42	12.3	0.88	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	11 May 2020	0902_MW073_200512	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	**2.43**	*5.35*	38.3	**43.6**	75.3	4.83	5.82	2.34	*<0.02*	1.4	2.44	11.5	0.91	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	11 May 2020	0902_QC101_200512	Field_D	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	**2.48**	*5.66*	47.4	**53.1**	91.8	5.81	9.64	2.70	*<0.02*	1.4	2.54	13.2	0.94	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	11 Nov 2020	0902_MW073_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	**1.16**	*6.38*	19.3	**25.7**	42.2	3.10	2.90	1.60	*<0.02*	1.4	1.00	4.72	0.64	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	05 May 2021	0902_MW073_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	**0.82**	*3.86*	21.4	**25.3**	38.4	2.53	3.23	0.76	*<0.02*	0.4	0.73	4.18	0.47	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	24 Nov 2021	0902_MW073_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	**1.72**	*4.32*	38.5	**42.8**	79.3	6.10	6.09	1.95	*<0.02*	1.3	2.70	15.7	0.95	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	24 May 2022	0902_MW073_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	**1.90**	*1.53*	26.1	**27.6**	36.4	0.22	1.13	3.68	*<0.02*	0.2	0.12	1.25	0.26	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	10 Nov 2022	0902_MW073_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	**1.81**	*1.61*	22.7	**24.3**	31.9	0.27	0.93	2.56	*<0.02*	0.3	0.22	1.33	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW073	15 May 2023	0902_MW073_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	**2.42**	*5.37*	43.0	**48.4**	81.2	4.56	5.58	1.73	*<0.02*	5.3	2.00	10.2	1.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	04 Jul 2017	0902_MW74_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	**0.95**	*11.6*	38.9	**50.5**	70.8	4.85	6.41	0.72	*<0.02*	*<0.1*	0.97	5.61	0.84	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	11 May 2020	0902_MW074_200512	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	**1.52**	*11.0*	26.6	**37.6**	58.7	3.71	3.90	2.30	*<0.02*	1.4	1.18	6.32	0.77	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	12 May 2020	0902_QC201_200512	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	**0.97**	*6.3*	21	**27.3**	-	2.4	2.5	1.4	*<0.01*	1.4	0.92	4.3	0.53	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
MW074	11 Nov 2020	0902_MW074_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	**1.13**	*3.48*	23.6	**27.1**	47.4	3.56	3.99	1.12	*<0.02*	1.0	1.47	7.49	0.53	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	05 May 2021	0902_MW074_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	**0.96**	*1.04*	24.0	**25.0**	38.8	1.90	2.62	1.58	*<0.02*	0.1	0.83	5.34	0.41	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	24 Nov 2021	0902_MW074_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	**1.28**	*5.59*	27.1	**32.7**	58.8	5.20	4.69	1.36	*<0.02*	2.5	1.43	8.87	0.82	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	24 May 2022	0902_MW074_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	**1.27**	*6.34*	28.7	**35.0**	60.8	4.92	5.74	1.57	*<0.02*	3.0	0.94	7.51	0.85	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	10 Nov 2022	0902_MW074_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	**1.44**	*6.32*	39.2	**45.5**	79.7	6.45	7.99	0.73	*<0.02*	4.5	1.89	10.2	1.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	10 Nov 2022	0902_QC111_221110	Field_D	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	**1.45**	*7.85*	34.8	**42.6**	75.4	6.09	6.66	1.06	*<0.02*	4.1	1.85	10.4	1.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW074	15 May 2023	0902_MW074_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	**1.94**	*10.6*	54.6	**65.2**	110	8.61	9.90	1.33	*<0.02*	6.5	2.63	13.0	1.45	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	27 Nov 2017	0902_MW75_271117	Normal	ES1729991	NSW_0902_PFAS	DSI	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	15 Nov 2019	0902_MW075_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	15 May 2020	0902_MW075_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.04	*0.04*	4.26	**4.30**	18.8	4.16	3.37	*<0.02*	*<0.02*	0.4	0.99	5.00	0.54	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	10 Nov 2020	0902_MW075_201110	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	04 May 2021	0902_MW075_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	25 Nov 2021	0902_MW075_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	30 May 2022	0902_MW075_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*<0.01*	0.01	0.01	0.01	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	08 Nov 2022	0902_MW075_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*<0.01*	0.01	0.01	0.01	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	08 May 2023	0902_MW075_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	08 May 2023	0902_QC100_230508	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW075	08 May 2023	0902_QC200_230508	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW076	27 Nov 2017	0902_MW76_271117	Normal	ES1729991	NSW_0902_PFAS	DSI	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW076	15 Nov 2019	0902_MW076_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*

Table T4 - Groundwater Historical Analytical Results

							Nutrients																		Inorganics																	
							Ammonia	Ammonia as N	Ammonia as N (filtered)	Nitrate (as N)	Nitrate (as N) (filtered)	Nitrite (as N)	Nitrite (as N) (filtered)	Nitrite + Nitrate as N	Nitrogen (Total Oxidised)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Reactive Phosphorus as P	Reactive Phosphorus as P (Orthophosphate as P)	Total Phosphorus as P (Organic Phosphate as P)	Hardness (filtered)	Carbonate Alkalinity (as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Anions Total	Cations Total	Bromine	Bromine (filtered)	Chloride	Fluoride	Ionic Balance	Sulphate as SO4 - Turbidimetric (filtered)	Sulphate
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	µg/L	µg/L	mg/L	mg/L	%	mg/L	mg/L
LOR							0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.2	100	0.1	0.01	0.01	0.005	0.01		1	1	1	1	1	0.01	0.01	10	10	1	0.1	0.01	1	1
PFAS NEMP 2020 Drinking Water																																					
PFAS NEMP 2020 Freshwater 99%																																					
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																																	
MW070	03 Nov 2022	0902_MW070_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW070	09 May 2023	0902_MW070_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	04 Jul 2017	0902_MW71_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.01	-	1.19	-	*<0.01*	-	1.19	-	-	-	-	*<0.01*	-	-	-	*<1*	30	-	*<1*	30	1.17	1.13	-	*<100*	13	0.1	-	10	-
MW071	14 Nov 2019	0902_MW071_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	15 May 2020	0902_MW071_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	15 May 2020	0902_QC111_200515	Field_D	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	13 Nov 2020	0902_MW071_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	04 May 2021	0902_MW071_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	22 Nov 2021	0902_MW071_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	26 May 2022	0902_MW071_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	03 Nov 2022	0902_MW071_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	09 May 2023	0902_MW071_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	04 Jul 2017	0902_MW72_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.03	-	*<0.01*	-	*<0.01*	-	*<0.01*	-	-	-	-	*<0.01*	-	-	-	*<1*	138	-	*<1*	138	3.36	2.57	-	100	20	*<0.1*	13.3	2	-
MW072	13 Nov 2019	0902-MW072_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	11 May 2020	0902_MW072_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	11 Nov 2020	0902_MW072_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	05 May 2021	0902_MW072_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	24 Nov 2021	0902_MW072_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	24 May 2022	0902_MW072_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	10 Nov 2022	0902_MW072_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	15 May 2023	0902_MW072_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	04 Jul 2017	0902_MW73_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.28	-	*<0.01*	-	0.03	-	*<0.01*	-	-	-	-	0.46	-	-	-	*<1*	171	-	*<1*	171	4.04	4.56	-	500	20	0.4	6.05	3	-
MW073	28 Nov 2019	0902_MW073_191128	Normal	ES1939504	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	11 May 2020	0902_MW073_200512	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	11 May 2020	0902_QC101_200512	Field_D	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	11 Nov 2020	0902_MW073_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	05 May 2021	0902_MW073_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	24 Nov 2021	0902_MW073_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	24 May 2022	0902_MW073_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	10 Nov 2022	0902_MW073_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	15 May 2023	0902_MW073_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	04 Jul 2017	0902_MW74_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program	-	0.06	-	0.02	-	*<0.01*	-	0.02	-	-	-	-	0.05	-	-	-	*<1*	431	-	*<1*	431	10.0	10.6	-	900	46	0.7	2.83	5	-
MW074	11 May 2020	0902_MW074_200512	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	12 May 2020	0902_QC201_200512	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	11 Nov 2020	0902_MW074_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	05 May 2021	0902_MW074_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	24 Nov 2021	0902_MW074_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	24 May 2022	0902_MW074_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	10 Nov 2022	0902_MW074_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	10 Nov 2022	0902_QC111_221110	Field_D	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	15 May 2023	0902_MW074_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW075	27 Nov 2017	0902_MW75_271117	Normal	ES1729991	NSW_0902_PFAS	DSI	-	0.02	-	0.07	-	*<0.01*	-	0.07	-	-	-	-	-	-	-	-	*<1*	178	-	*<1*	178	5.99	6.09	-	-	76	0.4	0.81	14	-
MW075	15 Nov 2019	0902_MW075_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	*<0.01*	-	3.29	-	0.02	-	3.31	-	-	-	0.10	-	-	-	-	*<1*	96	-	*<1*	96	4.57	4.85	-	200	82	-	2.93	5	-
MW075	15 May 2020	0902_MW075_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	*<0.01*	-	3.16	-	*<0.01*	-	3.16	-	-	-	0.06	-	-	-	-	*<1*	104	-	*<1*	104	4.74	4.52	-	200	90	-	2.41	6	-
MW075	10 Nov 2020	0902_MW075_201110	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP	-	*<0.01*	-	3.40	-	*<0.01*	-	3.40	-	-	-	0.06	-	-	-	-	*<1*	108	-	*<1*	108	5.12	4.67	-	200	100	0.2	4.59	7	-
MW075	04 May 2021	0902_MW075_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	*<0.01*	-	4.04	-	*<0.01*	-	4.04	-	5,000	1.0	-	-	-	0.24	-	-	-	-	-	-	-	-	-	300	-	-	-	-	-	-
MW075	25 Nov 2021	0902_MW075_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	0.02	-	3.26	-	0.02	-	3.28	-	-	-	-	-	-	0.06	-	*<1*	86	-	*<1*	86	4.30	4.59	-	200	87	-	3.26	6	-
MW075	30 May 2022	0902_MW075_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	*<0.01*	-	3.42	-	0.06	-	3.48	-	-	-	-	-	-	0.06	-	*<1*	90	-	*<1*	90	4.39	4.46	-	200	89	-	0.81	4	-
MW075	08 Nov 2022	0902_MW075_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	*<0.01*	-	3.14	-	0.13	-	3.27	-	4,400	1.1	-	-	-	0.10	-	*<1*	86	-	*<1*	86	4.60	4.36	900	-	97	-	2.66	7	-
MW075	08 May 2023	0902_MW075_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW075	08 May 2023	0902_QC100_230508	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW075	08 May 2023	0902_QC200_230508	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	27 Nov 2017	0902_MW76_271117	Normal	ES1729991	NSW_0902_PFAS	DSI	-	0.11	-	0.01	-	*<0.01*	-	0.01	-	-	-	-	-	-	-	-	*<1*	156	-	*<1*	156	15.9	14.5	-	-	434	0.3	4.64	27	-
MW076	15 Nov 2019	0902_MW076_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	15 May 2020	0902_MW076_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	09 Nov 2020	0902_MW076_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	03 May 2021	0902_MW076_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	25 Nov 2021	0902_MW076_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	31 May 2022	0902_MW076_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	10 Nov 2022	0902_MW076_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	10 May 2023	0902_MW076_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	10 May 2023	0902_QC110_230510	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	10 May 2023	0902_QC210_230510	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW077	27 Nov 2017	0902_MW77_271117	Normal	ES1729991	NSW_0902_PFAS	DSI	-	0.01	-	0.01	-	*<0.01*	-	0.01	-	-	-	-	-	-	-	-	*<1*	171	-	*<1*	171	7.91	7.41	-	-	152	0.2	3.25	10	-
MW077	27 Nov 2017	0902_QC201_271117	Interlab_D	180859	NSW_0902_PFAS	DSI	*<0.005*	-	-	0.02	-	*<0.005*	-	-	-	-	-	-	-	-	-	-	-	170	*<5*	*<5*	170	-	-	-	-	130	-	3.0	-	8
MW077	15 Nov 2019	0902_MW077_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*<1*	101	-	*<1*	101	7.62	7.04	-	-	194	-	3.89	6	-

Table T4 - Groundwater Historical Analytical Results

																								Metals										
								TDS	TDS (filtered)	Total Suspended Solids	Aluminium	Aluminium (filtered)	Arsenic	Arsenic (filtered)	Barium (filtered)	Beryllium (filtered)	Boron (filtered)	Cadmium (filtered)	Calcium (filtered)	Chromium (III+VI) (filtered)	Copper (filtered)	Iron	Iron (filtered)	Lead (filtered)	Magnesium (filtered)	Manganese	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Potassium (filtered)	Sodium (filtered)	Vanadium (filtered)	Zinc (filtered)
								mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR								5	5	5	0.01	0.01	0.001	0.001	0.001	0.0005	0.02	0.0001	0.5	0.001	0.001	0.01	0.01	0.001	0.5	0.001	0.001	0.00005	0.001	0.5	0.5	0.001	0.001
PFAS NEMP 2020 Drinking Water																																	
PFAS NEMP 2020 Freshwater 99%																																	
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																											
MW070	03 Nov 2022	0902_MW070_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW070	09 May 2023	0902_MW070_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	04 Jul 2017	0902_MW71_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		-	112	-	-	*<0.01*	-	*<0.001*	-	-	-	*<0.0001*	4	*<0.001*	*<0.001*	-	*<0.05*	*<0.001*	6	-	0.001	*<0.0001*	0.002	*<1*	10	-	*<0.005*
MW071	14 Nov 2019	0902_MW071_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	15 May 2020	0902_MW071_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	15 May 2020	0902_QC111_200515	Field_D	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	13 Nov 2020	0902_MW071_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	04 May 2021	0902_MW071_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	22 Nov 2021	0902_MW071_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	26 May 2022	0902_MW071_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	03 Nov 2022	0902_MW071_221103	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW071	09 May 2023	0902_MW071_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	04 Jul 2017	0902_MW72_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		-	376	-	-	*<0.01*	-	*<0.001*	-	-	-	0.0002	15	*<0.001*	*<0.001*	-	*<0.05*	*<0.001*	13	-	1.35	*<0.0001*	0.015	4	15	-	0.022
MW072	13 Nov 2019	0902-MW072_191113	Normal	ES1937511	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	11 May 2020	0902_MW072_200511	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	11 Nov 2020	0902_MW072_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	05 May 2021	0902_MW072_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	24 Nov 2021	0902_MW072_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	24 May 2022	0902_MW072_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	10 Nov 2022	0902_MW072_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW072	15 May 2023	0902_MW072_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	04 Jul 2017	0902_MW73_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		-	272	-	-	0.05	-	0.001	-	-	-	*<0.0001*	16	*<0.001*	*<0.001*	-	3.29	0.001	11	-	0.640	*<0.0001*	0.017	3	64	-	*<0.005*
MW073	28 Nov 2019	0902_MW073_191128	Normal	ES1939504	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	11 May 2020	0902_MW073_200512	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	11 May 2020	0902_QC101_200512	Field_D	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	11 Nov 2020	0902_MW073_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	05 May 2021	0902_MW073_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	24 Nov 2021	0902_MW073_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	24 May 2022	0902_MW073_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	10 Nov 2022	0902_MW073_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW073	15 May 2023	0902_MW073_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	04 Jul 2017	0902_MW74_040717	Normal	ES1716700	NSW_0902_PFAS	Early Works Program		-	557	-	-	*<0.01*	-	*<0.001*	-	-	-	*<0.0001*	9	*<0.001*	*<0.001*	-	0.15	*<0.001*	16	-	0.223	*<0.0001*	0.011	*<1*	203	-	0.006
MW074	11 May 2020	0902_MW074_200512	Normal	ES2016273	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	12 May 2020	0902_QC201_200512	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	11 Nov 2020	0902_MW074_201111	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	05 May 2021	0902_MW074_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	24 Nov 2021	0902_MW074_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	24 May 2022	0902_MW074_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	10 Nov 2022	0902_MW074_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	10 Nov 2022	0902_QC111_221110	Field_D	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW074	15 May 2023	0902_MW074_230515	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW075	27 Nov 2017	0902_MW75_271117	Normal	ES1729991	NSW_0902_PFAS	DSI		2,510	-	-	-	0.05	-	-	-	-	-	-	13	-	-	-	0.53	-	14	-	1.98	-	-	1	98	-	-
MW075	15 Nov 2019	0902_MW075_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	85	-	*<0.01*	-	-	-	-	-	-	15	-	-	-	*<0.05*	-	12	-	0.406	-	-	1	71	-	-
MW075	15 May 2020	0902_MW075_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	1,170	-	*<0.01*	-	-	-	-	-	-	14	-	-	-	*<0.05*	-	11	-	0.344	-	-	*<1*	67	-	-
MW075	10 Nov 2020	0902_MW075_201110	Normal	ES2039912	NSW_0902_PFASOMP	202011_AECOM_OMP		-	-	28	-	*<0.01*	-	-	-	-	-	-	14	-	-	-	0.07	-	11	-	0.260	-	-	1	70	-	-
MW075	04 May 2021	0902_MW075_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	0.07	-	-	-	0.212	-	-	-	-	-	-	-
MW075	25 Nov 2021	0902_MW075_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	*<0.01*	-	-	-	-	-	-	14	-	-	-	*<0.05*	-	11	-	0.190	-	-	1	68	-	-
MW075	30 May 2022	0902_MW075_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		-	-	-	-	*<0.01*	-	-	-	-	-	-	13	-	-	-	*<0.05*	-	12	-	0.248	-	-	*<1*	65	-	-
MW075	08 Nov 2022	0902_MW075_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	0.03	-	-	-	-	-	-	-	12	-	-	0.05	-	-	10	0.298	-	-	-	1	67	-	-
MW075	08 May 2023	0902_MW075_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW075	08 May 2023	0902_QC100_230508	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW075	08 May 2023	0902_QC200_230508	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	27 Nov 2017	0902_MW76_271117	Normal	ES1729991	NSW_0902_PFAS	DSI		1,260	-	-	-	0.04	-	-	-	-	-	-	25	-	-	-	1.17	-	21	-	2.18	-	-	2	264	-	-
MW076	15 Nov 2019	0902_MW076_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	15 May 2020	0902_MW076_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	09 Nov 2020	0902_MW076_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	03 May 2021	0902_MW076_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	25 Nov 2021	0902_MW076_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	31 May 2022	0902_MW076_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	10 Nov 2022	0902_MW076_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	10 May 2023	0902_MW076_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	10 May 2023	0902_QC110_230510	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW076	10 May 2023	0902_QC210_230510	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW077	27 Nov 2017	0902_MW77_271117	Normal	ES1729991	NSW_0902_PFAS	DSI		3,880	-	-	-	0.02	-	-	-	-	-	-	15	-	-	-	1.15	-	18	-	3.81	-	-	2	118	-	-
MW077	27 Nov 2017	0902_QC201_271117	Interlab_D	180859	NSW_0902_PFAS	DSI		1,300	-	-	-	0.02	-	*<0.001*	-	-	-	*<0.0001*	13	*<0.001*	*<0.001*	-	1.1	*<0.001*	16	-	3.4	*<0.00005*	0.012	2.2	130	-	0.059
MW077	15 Nov 2019	0902_MW077_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP		-	-	60	-	-	-	-	-	-	-	-	15	-	-	-	-	-	17	-	-	-	-	1	112	-	-

Table T4 - Groundwater Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																														
MW077	15 May 2020	0902_MW077_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.08*	0.04	**0.12**	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	09 Nov 2020	0902_MW077_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*0.07*	0.04	**0.11**	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	03 May 2021	0902_MW077_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*0.04*	0.03	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	25 Nov 2021	0902_MW077_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.05*	0.04	**0.09**	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	31 May 2022	0902_MW077_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*0.03*	0.03	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	10 Nov 2022	0902_MW077_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.02*	0.03	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW077	10 May 2023	0902_MW077_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*0.04*	0.02	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	27 Nov 2017	0902_MW78_271117	Normal	ES1729991	NSW_0902_PFAS	DSI	*<0.01*	*<0.01*	0.02	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	27 Nov 2017	0902_QC101_271117	Field_D	ES1729991	NSW_0902_PFAS	DSI	*<0.01*	*<0.01*	0.02	0.02	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.15	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	15 Nov 2019	0902_MW078_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	13 May 2020	0902_MW078_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	09 Nov 2020	0902_MW078_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	03 May 2021	0902_MW078_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	25 Nov 2021	0902_MW078_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.01*	0.02	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	30 May 2022	0902_MW078_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*0.07*	0.03	**0.10**	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	03 Nov 2022	0902_MW078_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.07*	0.04	**0.11**	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	03 Nov 2022	0902_QC103_221103	Field_D	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.05*	0.03	**0.08**	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW078	09 May 2023	0902_MW078_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*0.03*	0.30	**0.33**	0.53	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	0.04	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	17 Nov 2017	0902_MW79_171117	Normal	ES1729044	NSW_0902_PFAS	DSI	0.04	*0.03*	0.55	**0.58**	0.96	0.07	0.12	0.03	*<0.02*	*<0.1*	*<0.02*	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	17 Nov 2017	0902_QC183_171117	Field_D	ES1729044	NSW_0902_PFAS	DSI	0.04	*0.04*	0.65	**0.69**	1.09	0.11	0.12	0.04	*<0.02*	*<0.1*	*<0.02*	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	15 Nov 2019	0902_MW079_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	0.02	*0.01*	0.83	**0.84**	1.21	0.13	0.12	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	13 May 2020	0902_MW079_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.02	*0.02*	1.07	**1.09**	1.68	0.24	0.14	0.03	*<0.02*	*<0.1*	0.03	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	09 Nov 2020	0902_MW079_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	0.01	*<0.01*	0.72	**0.72**	1.07	0.12	0.12	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	03 May 2021	0902_MW079_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.02	*<0.01*	1.13	**1.13**	1.67	0.16	0.16	0.03	*<0.02*	*<0.1*	0.03	0.14	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	24 Nov 2021	0902_MW079_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.02	*0.08*	0.82	**0.90**	1.34	0.14	0.11	0.02	*<0.02*	*<0.1*	0.02	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	31 May 2022	0902_MW079_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.02	*0.52*	1.25	**1.77**	2.36	0.16	0.18	0.03	*<0.02*	*<0.1*	0.04	0.14	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	08 Nov 2022	0902_MW079_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.06	*1.44*	1.64	**3.08**	3.83	0.16	0.18	0.04	*<0.02*	*<0.1*	0.06	0.22	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	10 May 2023	0902_MW079_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.05	*1.04*	1.39	**2.43**	3.06	0.14	0.15	0.04	*<0.02*	*<0.1*	0.04	0.19	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	10 May 2023	0902_QC111_230510	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.06	*1.52*	1.62	**3.14**	3.93	0.18	0.19	0.05	*<0.02*	*<0.1*	0.06	0.22	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW079	10 May 2023	0902_QC211_230510	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.05	*0.93*	1.7	**2.7**	3.4	0.16	0.18	0.04	*<0.02*	0.06	0.06	0.22	0.03	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW080	17 Nov 2017	0902_MW80_171117	Normal	ES1729044	NSW_0902_PFAS	DSI	0.25	*2.51*	3.80	**6.31**	9.61	0.72	0.70	0.36	*<0.02*	*<0.1*	0.19	0.97	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	15 Nov 2019	0902_MW080_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	0.10	*1.17*	2.73	**3.90**	5.55	0.43	0.42	0.13	*<0.02*	*<0.1*	0.08	0.44	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	13 May 2020	0902_MW080_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.18	*2.28*	4.32	**6.60**	9.39	0.66	0.63	0.29	*<0.02*	*<0.1*	0.16	0.78	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	09 Nov 2020	0902_MW080_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	0.20	*3.38*	4.97	**8.35**	11.8	0.74	0.91	0.33	*<0.02*	0.1	0.17	0.89	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	03 May 2021	0902_MW080_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.10	*0.88*	2.21	**3.09**	4.69	0.39	0.37	0.12	*<0.02*	*<0.1*	0.09	0.47	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	24 Nov 2021	0902_MW080_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.18	*2.92*	4.38	**7.30**	10.5	0.86	0.62	0.28	*<0.02*	*<0.1*	0.16	1.01	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	24 Nov 2021	0902_QC207_211124	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	0.17	*2.3*	4.2	**6.5**	9.4	0.64	0.65	0.27	*<0.02*	0.08	0.2	0.79	0.11	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.01	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW080	16 Jun 2022	0902_MW080_220616	Normal	ES2221117-AB	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*0.06*	0.53	**0.59**	0.68	0.04	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	08 Nov 2022	0902_MW080_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.06	*0.78*	2.07	**2.85**	3.99	0.30	0.33	0.09	*<0.02*	*<0.1*	0.06	0.26	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW080	07 Dec 2022	0902_MW080_221207	Normal	312781	NSW_0902_PFASMGMT	Targeted GW Investigation	0.17	*2.0*	3.5	**5.5**	7.8	0.49	0.54	0.20	*<0.02*	0.07	0.1	0.62	0.08	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.01	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW080	08 May 2023	0902_MW080_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.17	*2.87*	3.62	**6.49**	8.94	0.53	0.64	0.27	*<0.02*	*<0.1*	0.17	0.59	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	09 Nov 2017	0902_MW81_091117	Normal	ES1728208	NSW_0902_PFAS	DSI	*<0.01*	*0.04*	0.03	0.07	0.09	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	15 Nov 2019	0902_MW081_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	15 Nov 2019	0902_QC107_191115	Field_D	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	15 May 2020	0902_MW081_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.2*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.12*	*<0.05*	*<0.12*	*<0.12*	*<0.05*	*<0.12*
MW081	13 Nov 2020	0902_MW081_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	05 May 2021	0902_MW081_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	29 Nov 2021	0902_MW081_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.02*	0.02	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	30 May 2022	0902_MW081_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*0.07*	0.03	**0.10**	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	03 Nov 2022	0902_MW081_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.07*	0.04	**0.11**	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	03 Nov 2022	0902_QC103_221103	Field_D	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.05*	0.03	**0.08**	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW081	09 May 2023	0902_MW081_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*0.04*	0.02	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW082	09 Nov 2017	0902_MW82_091117	Normal	ES1728208	NSW_0902_PFAS	DSI	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*

Table T4 - Groundwater Historical Analytical Results

							Nutrients																Inorganics																
							Ammonia	Ammonia as N	Ammonia as N (filtered)	Nitrate (as N)	Nitrate (as N) (filtered)	Nitrite (as N)	Nitrite (as N) (filtered)	Nitrite + Nitrate as N	Nitrogen (Total Oxidised)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Reactive Phosphorus as P	Reactive Phosphorus as P (Orthophosphate as P)	Total Phosphorus as P (Organic Phosphate as P)	Hardness (filtered)	Carbonate Alkalinity (as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Carbonate)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Anions Total	Cations Total	Bromine	Bromine (filtered)	Chloride	Fluoride	Ionic Balance	Sulphate as SO4 - Turbidimetric (filtered)	Sulphate
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	µg/L	µg/L	mg/L	mg/L	%	mg/L	mg/L
LOR							0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.2	100	0.1	0.01	0.01	0.005	0.01		1	1	1	1	1	0.01	0.01	10	10	1	0.1	0.01	1	1
PFAS NEMP 2020 Drinking Water																																					
PFAS NEMP 2020 Freshwater 99%																																					
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																																	
MW077	15 May 2020	0902_MW077_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	98	-	<1	98	8.22	8.60	-	-	216	-	2.28	8	-
MW077	09 Nov 2020	0902_MW077_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	100	-	<1	100	7.78	6.84	-	-	199	0.2	6.39	8	-
MW077	03 May 2021	0902_MW077_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW077	25 Nov 2021	0902_MW077_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW077	31 May 2022	0902_MW077_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW077	10 Nov 2022	0902_MW077_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW077	10 May 2023	0902_MW077_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	27 Nov 2017	0902_MW78_271117	Normal	ES1729991	NSW_0902_PFAS	DSI	-	0.03	-	0.02	-	<0.01	-	0.02	-	-	-	-	-	-	-	-	<1	158	-	<1	158	15.1	13.9	-	-	406	0.8	3.95	22	-
MW078	27 Nov 2017	0902_QC101_271117	Field_D	ES1729991	NSW_0902_PFAS	DSI	-	0.03	-	0.02	-	<0.01	-	0.02	-	-	-	-	-	-	-	-	<1	159	-	<1	159	15.3	13.9	-	-	410	0.7	4.59	25	-
MW078	15 Nov 2019	0902_MW078_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	13 May 2020	0902_MW078_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	09 Nov 2020	0902_MW078_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	03 May 2021	0902_MW078_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	25 Nov 2021	0902_MW078_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	31 May 2022	0902_MW078_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	31 May 2022	0902_QC208_220531	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	08 Nov 2022	0902_MW078_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	08 Nov 2022	0902_QC212_221108	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW078	11 May 2023	0902_MW078_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW079	17 Nov 2017	0902_MW79_171117	Normal	ES1729044	NSW_0902_PFAS	DSI	-	0.04	-	0.04	-	<0.01	-	0.04	-	-	-	-	-	-	-	-	<1	129	-	<1	129	14.1	13.1	-	-	353	0.5	3.67	76	-
MW079	17 Nov 2017	0902_QC183_171117	Field_D	ES1729044	NSW_0902_PFAS	DSI	-	0.04	-	0.04	-	<0.01	-	0.04	-	-	-	-	-	-	-	-	<1	132	-	<1	132	13.9	12.6	-	-	341	0.4	4.87	78	-
MW079	15 Nov 2019	0902_MW079_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW079	13 May 2020	0902_MW079_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW079	09 Nov 2020	0902_MW079_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW079	03 May 2021	0902_MW079_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW079	24 Nov 2021	0902_MW079_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW079	31 May 2022	0902_MW079_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW079	08 Nov 2022	0902_MW079_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW079	10 May 2023	0902_MW079_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW079	10 May 2023	0902_QC111_230510	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW079	10 May 2023	0902_QC211_230510	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW080	17 Nov 2017	0902_MW80_171117	Normal	ES1729044	NSW_0902_PFAS	DSI	-	0.02	-	0.08	-	0.07	-	0.15	-	-	-	-	-	-	-	-	<1	113	-	<1	113	14.0	6.01	-	-	409	0.2	40.0	11	-
MW080	15 Nov 2019	0902_MW080_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW080	13 May 2020	0902_MW080_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW080	09 Nov 2020	0902_MW080_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW080	03 May 2021	0902_MW080_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW080	24 Nov 2021	0902_MW080_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW080	24 Nov 2021	0902_QC207_211124	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW080	16 Jun 2022	0902_MW080_220616	Normal	ES2221117-AB	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW080	08 Nov 2022	0902_MW080_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW080	07 Dec 2022	0902_MW080_221207	Normal	312781	NSW_0902_PFASMGMT	Targeted GW Investigation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	<5	93	-	<5	93	-	-	-	-	250	-	2.0	-	8
MW080	08 May 2023	0902_MW080_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW081	09 Nov 2017	0902_MW81_091117	Normal	ES1728208	NSW_0902_PFAS	DSI	-	0.02	-	0.39	-	0.10	-	0.49	-	-	-	-	<0.01	-	-	-	<1	384	-	<1	384	14.8	14.2	-	-	228	1.0	2.09	36	-
MW081	15 Nov 2019	0902_MW081_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	0.12	-	<0.01	-	<0.01	-	<0.01	-	-	-	0.06	-	-	-	-	<1	428	-	<1	428	16.9	15.3	-	900	279	-	4.91	24	-
MW081	15 Nov 2019	0902_QC107_191115	Field_D	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW081	15 May 2020	0902_MW081_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	0.09	-	<0.01	-	<0.01	-	<0.01	-	-	-	5.76	-	-	-	-	<1	313	-	<1	313	10.5	9.80	-	500	131	-	3.39	26	-
MW081	13 Nov 2020	0902_MW081_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	0.06	-	<0.01	-	<0.01	-	<0.01	-	-	-	0.07	-	-	-	-	<1	371	-	<1	371	13.4	12.6	-	600	196	1.2	3.24	23	-
MW081	05 May 2021	0902_MW081_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	0.10	-	0.03	-	<0.01	-	0.03	-	400	0.4	-	-	-	0.09	-	-	-	-	-	-	-	-	900	-	-	-	-	-	-	-
MW081	29 Nov 2021	0902_MW081_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	0.04	-	0.02	-	<0.01	-	0.02	-	-	-	-	-	-	0.06	-	<1	389	-	<1	389	15.8	14.3	-	900	261	-	4.87	31	-
MW081	30 May 2022	0902_MW081_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	0.02	-	0.32	-	0.06	-	0.38	-	-	-	-	-	-	0.10	-	<1	312	-	<1	312	12.9	12.3	-	700	205	-	2.53	43	-
MW081	03 Nov 2022	0902_MW081_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	0.03	-	2.22	-	0.09	-	2.31	-	3,200	0.9	-	-	-	0.20	-	<1	286	-	<1	286	12.7	12.5	900	-	201	-	0.81	64	-
MW081	03 Nov 2022	0902_QC103_221103	Field_D	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	0.02	-	2.32	-	0.08	-	2.40	-	3,000	0.6	-	-	-	0.17	-	<1	284	-	<1	284	12.4	12.6	1,000	-	201	-	0.60	51	-
MW081	09 May 2023	0902_MW081_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW082	09 Nov 2017	0902_MW82_091117	Normal	ES1728208	NSW_0902_PFAS	DSI	-	0.12	-	0.01	-	<0.01	-	0.01	-	-	-	-	<0.01	-	-	-	<1	276	-	<1	276	14.8	14.0	-	-	312	0.5	3.07	26	-
MW082	15 Nov 2019	0902_MW082_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	253	-	<1	253	13.4	12.2	-	-	284	-	4.63	16	-
MW082	15 May 2020	0902_MW082_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	246	-	<1	246	12.7	11.7	-	-	262	-	3.95	18	-
MW082	09 Nov 2020	0902_MW082_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	254	-	<1	254	13.4	12.4	-	-	282	0.4	4.18	20	-
MW082	04 May 2021	0902_MW082_210504	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW082	04 May 2021	0902_QC101_210504	Field_D	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW082	25 Nov 2021	0902_MW082_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	<0.01	-	0.02	-	<0.01	-	0.02	-	-	-	-	-	-	0.12	-	<1	286	-	<1	286	14.5	14.1	-	800	292	-	1.38	28	-
MW082	30 May 2022	0902_MW082_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	<0.01	-	<0.01	-	<0.01	-	<0.01	-	-	-	-	-	-	0.04	-	<1	254	-	<1	254	14.4	13.1	-	700	313	-	5.02	26	-
MW082	21 Nov 2022	0902_MW082_221121	Normal	ES2242128	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW082	09 May 2023	0902_MW082_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW086	17 Nov 2017	0902_MW86_171117	Normal	ES1729044	NSW_0902_PFAS	DSI	-	0.02	-	0.81	-	0.01	-	0.82	-	-	-	-	-	-	-	-	<1	303	-	<1	303	30.0	28.0	-	-	774	1.6	3.50	102	-
MW086	15 Nov 2019	0902_MW086_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW086	13 May 2020	0902_MW086_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T4 - Groundwater Historical Analytical Results

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Table T4 - Groundwater Historical Analytical Results

							PFAS					**PFAS - Perfluoroalkyl Sulfonic Acids**				**PFAS - Perfluoroalkyl Carboxylic Acids**										**PFAS - (n:2) Fluorotelomer Sulfonic Acids**				**PFAS - Perfluoroalkyl Sulfonamides**							
							Perfluorooctanoic acid (PFOA)	**Perfluorooctane sulfonic acid (PFOS)**	**Perfluorohexane sulfonic acid (PFHxS)**	**Sum of PFHxS and PFOS**	**Sum of PFAS**	**Perfluorobutane sulfonic acid (PFBS)**	**Perfluoropentane sulfonic acid (PFPeS)**	**Perfluoroheptane sulfonic acid (PFHpS)**	**Perfluorodecane sulfonic acid (PFDS)**	**Perfluorobutanoic acid (PFBA)**	**Perfluoropentanoic acid (PFPeA)**	**Perfluorohexanoic acid (PFHxA)**	**Perfluoroheptanoic acid (PFHpA)**	**Perfluorononanoic acid (PFNA)**	**Perfluorodecanoic acid (PFDA)**	**Perfluoroundecanoic acid (PFUnDA)**	**Perfluorododecanoic acid (PFDoDA)**	**Perfluorotridecanoic acid (PFTrDA)**	**Perfluorotetradecanoic acid (PFTeDA)**	**4:2 Fluorotelomer sulfonic acid (4:2 FTS)**	**6:2 Fluorotelomer sulfonic acid (6:2 FTS)**	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	**Perfluorooctane sulfonamide (FOSA)**	**N-Methyl perfluorooctane sulfonamide (MeFOSA)**	**N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)**	**N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)**	**N-Ethyl perfluorooctane sulfonamide (EtFOSA)**	**N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)**	**N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)**
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water							**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																														
MW086	09 Nov 2020	0902_MW086_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW086	03 May 2021	0902_MW086_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW086	22 Nov 2021	0902_MW086_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	17 Nov 2017	0902_MW91_171117	Normal	ES1729044	NSW_0902_PFAS	DSI	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	13 May 2020	0902_MW091_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.03*	0.03	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	09 Nov 2020	0902_MW091_201109	Normal	ES2039622	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*0.03*	0.02	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	03 May 2021	0902_MW091_210503	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*0.03*	0.04	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	25 Nov 2021	0902_MW091_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.02*	0.02	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	30 May 2022	0902_MW091_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*0.03*	0.06	**0.09**	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	07 Nov 2022	0902_MW091_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.02*	0.05	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW091	10 May 2023	0902_MW091_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*0.04*	0.03	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	17 Nov 2017	0902_MW92_171117	Normal	ES1729044	NSW_0902_PFAS	DSI	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	11 Nov 2019	0902_MW092_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	13 May 2020	0902_MW092_200513	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	13 Nov 2020	0902_MW092_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	06 May 2021	0902_MW092_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	25 Nov 2021	0902_MW092_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	31 May 2022	0902_MW092_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	07 Nov 2022	0902_MW092_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW092	10 May 2023	0902_MW092_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW095	16 Nov 2017	0902_MW95_161117	Normal	ES1729044	NSW_0902_PFAS	DSI	*<0.01*	*<0.01*	0.07	0.07	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW095	08 Nov 2019	0902_MW095_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*<0.01*	0.14	**0.14**	0.23	0.04	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW095	14 May 2020	0902_MW095_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*<0.01*	0.18	**0.18**	0.31	0.07	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW095	12 Nov 2020	0902_MW095_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.01*	0.12	**0.12**	0.19	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW095	06 May 2021	0902_MW095_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*<0.01*	0.09	**0.09**	0.16	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW095	29 Nov 2021	0902_MW095_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*<0.01*	0.12	**0.12**	0.22	0.06	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW097	11 Sep 2017	0902_QC200_171109	Interlab_D	179594	NSW_0902_PFAS	DSI	*<0.01*	*<0.01*	0.02	0.02	-	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW097	09 Nov 2017	0902_MW97_091117	Normal	ES1728208	NSW_0902_PFAS	DSI	*<0.01*	*<0.01*	0.02	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW097	14 Nov 2019	0902_MW097_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW097	14 May 2020	0902_MW097_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*<0.01*	0.02	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW097	13 Nov 2020	0902_MW097_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW097	05 May 2021	0902_MW097_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW097	29 Nov 2021	0902_MW097_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW097	30 May 2022	0902_MW097_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW098	16 Nov 2017	0902_MW98_161117	Normal	ES1729044	NSW_0902_PFAS	DSI	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW098	14 Nov 2019	0902_MW098_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW098	14 May 2020	0902_MW098_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW098	12 Nov 2020	0902_MW098_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW098	05 May 2021	0902_MW098_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW098	29 Nov 2021	0902_MW098_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW098	30 May 2022	0902_MW098_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*<0.01*	0.01	0.01	0.01	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW099	13 Nov 2017	0902_MW99_131117	Normal	ES1728590	NSW_0902_PFAS	DSI	*<0.01*	*0.02*	0.03	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW099	14 Nov 2019	0902_MW099_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*0.03*	0.06	**0.09**	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW099	14 May 2020	0902_MW099_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.05*	0.09	**0.14**	0.16	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW099	12 Nov 2020	0902_MW099_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*0.04*	0.06	**0.10**	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	11 Jun 2020	0902_MW106_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME	0.03	*0.16*	0.64	**0.80**	1.35	0.13	0.15	0.03	*<0.02*	*<0.1*	0.03	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	09 Nov 2020	0902_MW106_201109	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME	0.02	*0.09*	0.47	**0.56**	0.93	0.09	0.08	0.02	*<0.02*	*<0.1*	0.03	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	24 Nov 2021	0902_MW106_211124	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.08	*0.97*	1.89	**2.86**	4.14	0.34	0.20	0.11	*<0.02*	*<0.1*	0.07	0.44	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	24 Nov 2021	0902_QC107_211124	Field_D	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.05	*0.53*	1.29	**1.82**	2.75	0.23	0.18	0.06	*<0.02*	*<0.1*	0.06	0.32	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW106	31 May 2022	0902_MW106_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*0.07*	0.50	**0.57**	0.66	0.04	0.05	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*

Table T4 - Groundwater Historical Analytical Results

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Table T4 - Groundwater Historical Analytical Results

Table T4 - Groundwater Historical Analytical Results

								PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
								Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR								0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.002	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water								**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%								*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																														
MW107I	10 Nov 2020	0902_QC100_201110	Field_D	ES2040501	NSW_0902_PFASMGMT	202011_OMP		**0.96**	*1.54*	7.47	**9.01**	17.9	1.35	1.69	0.41	<0.02	0.4	0.64	2.98	0.50	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW107I	23 Nov 2021	0902_MW107I_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		**0.77**	*2.67*	7.05	**9.72**	17.3	1.28	0.94	0.38	<0.02	0.2	0.48	3.08	0.41	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05
MW107I	23 Nov 2021	0902_QC104_211123	Field_D	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		**2.32**	*7.88*	18.8	**26.7**	49.7	3.48	3.40	1.15	<0.02	0.9	1.42	9.18	1.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.05
MW107I	24 May 2022	0902_MW107I_220524	Normal	ES2219017-AB	NSW_0902_PFASOMP	202205_AECOM_OMP		***32.4***	*156*	255	**411**	679	32.6	44.3	22.7	0.08	11.5	18.9	87.7	17.9	0.09	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW107I	16 Jun 2022	0902_MW107I_220616	Normal	ES2221117-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		***75.6***	*266*	500	**766**	1,340	71.7	91.3	52.8	0.13	23.0	43.1	178	37.0	0.20	<0.04	<0.04	<0.04	<0.04	<0.11	<0.05	0.10	<0.05	<0.05	<0.04	<0.11	<0.04	<0.11	<0.11	<0.04	<0.11
MW107I	14 Jul 2022	0902_MW107I_220714	Normal	ES2224988	NSW_0902_PFASOMP	202205_AECOM_OMP		**10.6**	*62.7*	92.6	**155**	244	12.2	15.3	5.33	<0.02	4.0	6.14	29.7	5.18	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW107I	14 Jul 2022	0902_QC101_220714	Field_D	ES2224988	NSW_0902_PFASOMP	202205_AECOM_OMP		**12.0**	*64.7*	96.7	**161**	258	13.9	15.0	6.08	<0.02	4.4	6.84	32.6	5.87	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW107I	10 Nov 2022	0902_MW107I_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		***95.0***	*370*	728	**1,100**	1,780	91.4	120	37.4	0.14	26.6	41.2	227	40.4	0.24	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	0.11	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW107I	12 Jan 2023	0902_MW107I_230112	Normal	314430	NSW_0902_PFASMGMT	Ad Hoc		**6.5**	*53*	64	**120**	180	11	11	4.2	<0.02	4.3	4.4	20	2.8	0.04	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW107I	09 May 2023	0902_MW107I_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		**6.91**	*70.2*	61.8	**132**	197	10.8	11.7	3.23	<0.02	3.5	5.36	20.1	3.84	0.05	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW108	11 Jun 2020	0902_MW108_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME		<0.01	*0.03*	0.34	**0.37**	0.73	0.11	0.12	<0.02	<0.02	<0.1	0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW108	11 Nov 2020	0902_MW108_201111	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME		0.10	*0.38*	0.45	**0.83**	1.45	0.13	0.05	0.03	<0.02	<0.1	0.08	0.20	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW108	11 Nov 2020	0902_QC200_201111	Interlab_D	255874	NSW_0902_PFASMGMT	202011_Baseline+GME		0.11	*0.40*	0.49	**0.90**	1.7	0.14	0.09	0.03	<0.02	0.1	0.09	0.19	0.04	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW108	23 Nov 2021	0902_MW108_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		0.13	*0.62*	0.88	**1.50**	2.67	0.30	0.12	0.05	<0.02	<0.1	0.12	0.34	0.08	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW108	23 Nov 2021	0902_QC105_211123	Field_D	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		0.16	*0.80*	0.95	**1.75**	3.20	0.33	0.13	0.05	<0.02	0.1	0.14	0.42	0.09	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW108	26 May 2022	0902_MW108_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		0.02	*0.08*	0.97	**1.05**	1.82	0.25	0.24	<0.02	<0.02	<0.1	0.04	0.20	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW108	26 May 2022	0902_QC203_220526	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP		0.01	*0.05*	0.64	**0.70**	1.3	0.22	0.17	<0.01	<0.02	0.03	0.03	0.17	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW108	11 Nov 2022	0902_MW108_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		<0.01	*0.03*	0.45	**0.48**	0.80	0.11	0.11	<0.02	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW108	07 Dec 2022	0902_MW108_221207	Normal	312781	NSW_0902_PFASMGMT	Targeted GW Investigation		0.02	*0.28*	0.47	**0.75**	1.2	0.12	0.1	0.01	<0.02	0.04	0.04	0.13	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW108	08 May 2023	0902_MW108_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.01	*0.10*	0.50	**0.60**	1.02	0.14	0.12	<0.02	<0.02	<0.1	0.03	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	11 Jun 2020	0902_MW109_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME		0.07	*1.36*	1.01	**2.37**	3.22	0.14	0.19	0.06	<0.02	<0.1	0.05	0.25	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	09 Nov 2020	0902_MW109_201109	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME		0.09	*1.74*	1.36	**3.10**	4.07	0.18	0.20	0.08	<0.02	<0.1	0.07	0.30	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	22 Nov 2021	0902_MW109_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP		0.20	*3.50*	2.87	**6.37**	8.59	0.50	0.41	0.19	<0.02	<0.1	0.12	0.69	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	22 Nov 2021	0902_QC100_211122	Field_D	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP		0.19	*3.21*	2.76	**5.97**	8.12	0.49	0.39	0.18	<0.02	<0.1	0.12	0.68	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	27 May 2022	0902_MW109_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		0.12	*3.14*	1.97	**5.11**	6.54	0.30	0.31	0.13	<0.02	<0.1	0.10	0.38	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	08 Nov 2022	0902_MW109_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		0.18	*3.81*	2.60	**6.41**	8.15	0.32	0.36	0.14	<0.02	<0.1	0.12	0.52	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW109	08 May 2023	0902_MW109_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.17	*3.62*	2.44	**6.06**	7.78	0.32	0.38	0.14	<0.02	<0.1	0.12	0.50	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	11 Jun 2020	0902_MW110_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME		0.01	*0.03*	0.52	**0.55**	1.09	0.14	0.16	<0.02	<0.02	<0.1	0.04	0.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	09 Nov 2020	0902_MW110_201109	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME		<0.01	*0.01*	0.35	**0.36**	0.65	0.08	0.08	<0.02	<0.02	<0.1	0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	22 Nov 2021	0902_MW110_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP		0.05	*0.10*	2.36	**2.46**	4.38	0.63	0.44	0.04	<0.02	<0.1	0.10	0.60	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	27 May 2022	0902_MW110_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		0.05	*0.11*	2.26	**2.37**	3.98	0.43	0.46	0.04	<0.02	<0.1	0.11	0.45	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	08 Nov 2022	0902_MW110_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP		0.05	*0.12*	2.00	**2.12**	3.39	0.30	0.37	0.03	<0.02	<0.1	0.08	0.40	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW110	08 May 2023	0902_MW110_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.06	*0.15*	1.96	**2.11**	3.49	0.33	0.39	0.04	<0.02	<0.1	0.09	0.42	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW111	11 Jun 2020	0902_MW111_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME		0.02	*0.02*	0.62	**0.64**	1.56	0.22	0.19	<0.02	<0.02	<0.1	0.08	0.39	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW111	12 Nov 2020	0902_MW111_201112	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME		<0.01	<0.01	0.22	**0.22**	0.60	0.10	0.07	<0.02	<0.02	<0.1	0.04	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW111	25 Nov 2021	0902_MW111_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		0.01	*0.05*	0.27	**0.32**	0.61	0.16	0.04	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW111	26 May 2022	0902_MW111_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		<0.01	*0.04*	0.69	**0.73**	2.46	0.98	0.52	<0.02	<0.02	<0.1	0.08	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW111	11 Nov 2022	0902_MW111_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		<0.01	<0.01	0.09	**0.09**	0.22	0.04	0.03	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW111	11 May 2023	0902_MW111_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		<0.01	<0.01	0.11	**0.11**	0.39	0.09	0.05	<0.02	<0.02	<0.1	0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW112	11 Jun 2020	0902_MW112_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME		<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW112	12 Nov 2020	0902_MW112_201112	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME		<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW112	25 Nov 2021	0902_MW112_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW112	26 May 2022	0902_MW112_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW112	11 Nov 2022	0902_MW112_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW112	11 May 2023	0902_MW112_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW113	11 Jun 2020	0902_MW113_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME		<0.01	*0.05*	<0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW113	12 Nov 2020	0902_MW113_201112	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME		<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW113	29 Nov 2021	0902_MW113_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW113	26 May 2022	0902_MW113_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW113	11 Nov 2022	0902_MW113_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW113	11 May 2023	0902_MW113_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	11 Jun 2020	0902_MW114_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME		<0.01	<0.01	0.06	0.06	0.08	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	11 Jun 2020	0902_QC100_200611	Field_D	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME		<0.01	<0.01	0.06	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	12 Nov 2020	0902_MW114_201112	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME		<0.01	<0.01	0.15	**0.15**	0.22	0.04	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	29 Nov 2021	0902_MW114_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP		<0.01	<0.01	0.14	**0.14**	0.19	0.03	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	29 Nov 2021	0902_QC213_211129	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP		<0.01	<0.01	0.14	**0.14**	0.20	0.03	0.02	<0.01	<0.02	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW114	26 May 2022	0902_MW114_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		<0.01	<0.01	0.15	**0.15**	0.19	0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW114	26 May 2022	0902_QC106_220526	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP		<0.01	<0.01	0.13	**0.13**	0.17	0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05

Table T4 - Groundwater Historical Analytical Results

| | | | | | | | | Nutrients | | | | | | | | | | | | | | | | | Inorganics | | | | | | | | | | | | | | | | |

Table T4 - Groundwater Historical Analytical Results

																										Metals												
									TDS	TDS (filtered)	Total Suspended Solids	Aluminium	Aluminium (filtered)	Arsenic	Arsenic (filtered)	Barium (filtered)	Beryllium (filtered)	Boron (filtered)	Cadmium (filtered)	Calcium (filtered)	Chromium (III+VI) (filtered)	Copper (filtered)	Iron	Iron (filtered)	Lead (filtered)	Magnesium (filtered)	Manganese	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Potassium (filtered)	Sodium (filtered)	Vanadium (filtered)	Zinc (filtered)
									mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR									5	5	5	0.01	0.01	0.001	0.001	0.001	0.0005	0.02	0.0001	0.5	0.001	0.001	0.01	0.01	0.001	0.5	0.001	0.001	0.00005	0.001	0.5	0.5	0.001	0.001
PFAS NEMP 2020 Drinking Water																																				
PFAS NEMP 2020 Freshwater 99%																																				
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																														
MW107I	10 Nov 2020	0902_QC100_201110	Field_D	ES2040501	NSW_0902_PFASMGMT	202011_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107I	23 Nov 2021	0902_MW107I_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107I	23 Nov 2021	0902_QC104_211123	Field_D	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107I	24 May 2022	0902_MW107I_220524	Normal	ES2219017-AB	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107I	16 Jun 2022	0902_MW107I_220616	Normal	ES2221117-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107I	14 Jul 2022	0902_MW107I_220714	Normal	ES2224988	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107I	14 Jul 2022	0902_QC101_220714	Field_D	ES2224988	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107I	10 Nov 2022	0902_MW107I_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107I	12 Jan 2023	0902_MW107I_230112	Normal	314430	NSW_0902_PFASMGMT	Ad Hoc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW107I	09 May 2023	0902_MW107I_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW108	11 Jun 2020	0902_MW108_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW108	11 Nov 2020	0902_MW108_201111	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW108	11 Nov 2020	0902_QC200_201111	Interlab_D	255874	NSW_0902_PFASMGMT	202011_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW108	23 Nov 2021	0902_MW108_211123	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW108	23 Nov 2021	0902_QC105_211123	Field_D	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW108	26 May 2022	0902_MW108_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW108	26 May 2022	0902_QC203_220526	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW108	11 Nov 2022	0902_MW108_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW108	07 Dec 2022	0902_MW108_221207	Normal	312781	NSW_0902_PFASMGMT	Targeted GW Investigation	-	-	-	-	-	-	-	-	-	-	-	-	110	-	-	-	-	-	78	-	-	-	-	5.6	290	-	-
MW108	08 May 2023	0902_MW108_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW109	11 Jun 2020	0902_MW109_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW109	09 Nov 2020	0902_MW109_201109	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW109	22 Nov 2021	0902_MW109_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW109	22 Nov 2021	0902_QC100_211122	Field_D	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW109	27 May 2022	0902_MW109_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW109	08 Nov 2022	0902_MW109_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW109	08 May 2023	0902_MW109_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW110	11 Jun 2020	0902_MW110_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW110	09 Nov 2020	0902_MW110_201109	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW110	22 Nov 2021	0902_MW110_211122	Normal	ES2142389	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW110	27 May 2022	0902_MW110_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW110	08 Nov 2022	0902_MW110_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW110	08 May 2023	0902_MW110_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW111	11 Jun 2020	0902_MW111_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW111	12 Nov 2020	0902_MW111_201112	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW111	25 Nov 2021	0902_MW111_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW111	26 May 2022	0902_MW111_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW111	11 Nov 2022	0902_MW111_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW111	11 May 2023	0902_MW111_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW112	11 Jun 2020	0902_MW112_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW112	12 Nov 2020	0902_MW112_201112	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW112	25 Nov 2021	0902_MW112_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW112	26 May 2022	0902_MW112_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW112	11 Nov 2022	0902_MW112_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW112	11 May 2023	0902_MW112_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW113	11 Jun 2020	0902_MW113_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW113	12 Nov 2020	0902_MW113_201112	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW113	29 Nov 2021	0902_MW113_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW113	26 May 2022	0902_MW113_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW113	11 Nov 2022	0902_MW113_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW113	11 May 2023	0902_MW113_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW114	11 Jun 2020	0902_MW114_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW114	11 Jun 2020	0902_QC100_200611	Field_D	ES2020394	NSW_0902_PFASMGMT	202006_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW114	12 Nov 2020	0902_MW114_201112	Normal	ES2040501	NSW_0902_PFASMGMT	202011_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW114	29 Nov 2021	0902_MW114_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW114	29 Nov 2021	0902_QC213_211129	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW114	26 May 2022	0902_MW114_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW114	26 May 2022	0902_QC106_220526	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW114	11 Nov 2022	0902_MW114_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW114	11 May 2023	0902_MW114_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW117	25 Jun 2020	0902_MW117_250620	Normal	ES2022272-AA	NSW_0902_PFASMGMT	202006_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW117	25 Nov 2021	0902_MW117_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW118	25 Jun 2020	0902_MW118_250620	Normal	ES2022272-AA	NSW_0902_PFASMGMT	202006_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW118	25 Nov 2021	0902_MW118_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW119	25 Jun 2020	0902_MW119_250620	Normal	ES2022272-AA	NSW_0902_PFASMGMT	202006_Baseline+GME	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW119	25 Nov 2021	0902_MW119_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T4 - Groundwater Historical Analytical Results

								PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
								Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
								µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR								0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.002	0.002	0.002	0.005	0.01	0.02	0.001	0.001	0.002	0.002	0.01	0.02	0.002	0.05	0.02	0.002	0.05
PFAS NEMP 2020 Drinking Water								**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%								*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**	Result																														
MW120	04 May 2021	0902_MW120_210504	Normal	ES2116724	NSW_0902_PFASOMP	202105_AECOM_OMP		*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW120	14 Dec 2021	0902_MW120_211214	Normal	ES2145705	NSW_0902_PFASOMP	202111_AECOM_OMP		*<0.01*	*0.02*	*<0.01*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW120	14 Dec 2021	0902_QC116_211214	Field_D	ES2145705	NSW_0902_PFASOMP	202111_AECOM_OMP		*<0.01*	*0.02*	*<0.01*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW121	04 May 2021	0902_MW121_210504	Normal	ES2116724	NSW_0902_PFASOMP	202105_AECOM_OMP		*<0.01*	*0.02*	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW121	14 Dec 2021	0902_MW121_211214	Normal	ES2145705	NSW_0902_PFASOMP	202111_AECOM_OMP		*<0.01*	*0.01*	0.01	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW121	14 Dec 2021	0902_QC216_211214	Interlab_D	285371	NSW_0902_PFASOMP	202111_AECOM_OMP		*<0.01*	*<0.01*	0.02	0.02	0.02	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW143	10 May 2023	0902_MW143_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.01	*0.58*	0.11	**0.69**	0.73	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW143	10 May 2023	0902_QC112_230510	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.01	*0.76*	0.14	**0.90**	1.01	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW143	10 May 2023	0902_QC212_230510	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.01	*0.65*	0.17	**0.81**	0.93	0.03	0.02	0.01	*<0.02*	*<0.02*	*<0.02*	0.04	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
MW143	09 Jun 2023	0902_MW143_230609	Normal	ES2319454	NSW_0902_PFASOMP_23	202305_AECOM_OMP		0.01	*0.70*	0.13	**0.83**	0.89	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW144	10 May 2023	0902_MW144_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP		*<0.01*	*0.01*	0.05	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
MW144	09 Jun 2023	0902_MW144_230609	Normal	ES2319454	NSW_0902_PFASOMP_23	202305_AECOM_OMP		*<0.01*	*0.02*	0.07	**0.09**	0.12	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
POT001	28 Aug 2017	0902_BW001_170828	Normal	ES1721435	NSW_0902_PFAS	Residential		*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
POT001	28 Aug 2017	0902_QC208_170828	Interlab_D	174366	NSW_0902_PFAS	Residential		*<0.01*	*<0.01*	*<0.01*	*<0.01*	-	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
POT002	20 Oct 2017	0902_BW002_201017	Normal	ES1726326	NSW_0902_PFAS	Residential		*<0.01*	*0.17*	0.03	**0.20**	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
POT002	16 Nov 2017	0902_BW002_161117	Normal	ES1729163	NSW_0902_PFAS	DSI		*<0.01*	*0.19*	0.04	**0.23**	0.23	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
POT002	12 May 2020	0902_POT002_200512	Normal	ES2016272	NSW_0902_PFASOMP	202005_AECOM_OMP		*<0.01*	*0.14*	0.03	**0.17**	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Table T4 - Groundwater Historical Analytical Results

								Nutrients																Inorganics																	
								Ammonia	Ammonia as N	Ammonia as N (filtered)	Nitrate (as N)	Nitrate (as N) (filtered)	Nitrite (as N)	Nitrite (as N) (filtered)	Nitrite + Nitrate as N	Nitrogen (Total Oxidised)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Reactive Phosphorus as P	Reactive Phosphorus as P (Orthophosphate as P)	Total Phosphorus as P (Organic Phosphate as P)	Hardness (filtered)	Carbonate Alkalinity (as CaCO3)	Bicarbonate Alkalinity (as CaCO3)	Alkalinity (Carbonate)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Anions Total	Cations Total	Bromine	Bromine (filtered)	Chloride	Fluoride	Ionic Balance	Sulphate as SO4 - Turbidimetric (filtered)	Sulphate
								mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	µg/L	µg/L	mg/L	mg/L	%	mg/L	mg/L
LOR								0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.2	100	0.1	0.01	0.01	0.005	0.01		1	1	1	1	1	0.01	0.01	10	10	1	0.1	0.01	1	1
PFAS NEMP 2020 Drinking Water																																						
PFAS NEMP 2020 Freshwater 99%																																						
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																																		
MW120	04 May 2021	0902_MW120_210504	Normal	ES2116724	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW120	14 Dec 2021	0902_MW120_211214	Normal	ES2145705	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW120	14 Dec 2021	0902_QC116_211214	Field_D	ES2145705	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW121	04 May 2021	0902_MW121_210504	Normal	ES2116724	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW121	14 Dec 2021	0902_MW121_211214	Normal	ES2145705	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW121	14 Dec 2021	0902_QC216_211214	Interlab_D	285371	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW143	10 May 2023	0902_MW143_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW143	10 May 2023	0902_QC112_230510	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW143	10 May 2023	0902_QC212_230510	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW143	09 Jun 2023	0902_MW143_230609	Normal	ES2319454	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW144	10 May 2023	0902_MW144_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW144	09 Jun 2023	0902_MW144_230609	Normal	ES2319454	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
POT001	28 Aug 2017	0902_BW001_170828	Normal	ES1721435	NSW_0902_PFAS	Residential	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
POT001	28 Aug 2017	0902_QC208_170828	Interlab_D	174366	NSW_0902_PFAS	Residential	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
POT002	20 Oct 2017	0902_BW002_201017	Normal	ES1726326	NSW_0902_PFAS	Residential	-	71.6	-	0.10	-	0.03	-	0.13	-	-	-	-	-	-	-	-	-	-	<1	249	-	<1	249	9.99	10.6	-	-	152	-	2.82	35	-
POT002	16 Nov 2017	0902_BW002_161117	Normal	ES1729163	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
POT002	12 May 2020	0902_POT002_200512	Normal	ES2016272	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Table T4 - Groundwater Historical Analytical Results

| | | |

Table T5 - Surface Water Historical Analytical Results

						PFAS					**PFAS - Perfluoroalkyl Sulfonic Acids**				**PFAS - Perfluoroalkyl Carboxylic Acids**											**PFAS - (n:2) Fluorotelomer Sulfonic Acids**				**PFAS - Perfluoroalkyl Sulfonamides**						
						Perfluorooctanoic acid (PFOA)	**Perfluorooctane sulfonic acid (PFOS)**	**Perfluorohexane sulfonic acid (PFHxS)**	**Sum of PFHxS and PFOS**	**Sum of PFAS**	**Perfluorobutane sulfonic acid (PFBS)**	**Perfluoropentane sulfonic acid (PFPeS)**	**Perfluoroheptane sulfonic acid (PFHpS)**	**Perfluorodecane sulfonic acid (PFDS)**	**Perfluorobutanoic acid (PFBA)**	**Perfluoropentanoic acid (PFPeA)**	**Perfluorohexanoic acid (PFHxA)**	**Perfluoroheptanoic acid (PFHpA)**	**Perfluorononanoic acid (PFNA)**	**Perfluorodecanoic acid (PFDA)**	**Perfluoroundecanoic acid (PFUnDA)**	**Perfluorododecanoic acid (PFDoDA)**	**Perfluorotridecanoic acid (PFTrDA)**	**Perfluorotetradecanoic acid (PFTeDA)**	**4:2 Fluorotelomer sulfonic acid (4:2 FTS)**	**6:2 Fluorotelomer sulfonic acid (6:2 FTS)**	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	**Perfluorooctane sulfonamide (FOSA)**	**N-Methyl perfluorooctane sulfonamide (MeFOSA)**	**N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)**	**N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)**	**N-Ethyl perfluorooctane sulfonamide (EtFOSA)**	**N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)**	**N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)**
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																											
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																													
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																															
SW001	03 Jul 2017	0902_SW001_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	9.02	*10.3*	0.78	**11.1**	847	0.52	0.43	0.18	*<0.02*	4.8	7.62	50.6	3.93	9.00	9.37	1.19	1.22	*<0.02*	*<0.05*	0.13	712	25.6	0.20	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	03 Jul 2017	0902_QC107_030717	Field_D	ES1716547	NSW_0902_PFAS	Early Works Program	**10.1**	*10.6*	1.17	**11.8**	604	0.87	0.71	0.21	0.23	3.2	8.90	53.5	2.31	7.49	7.79	1.14	1.50	0.02	*<0.05*	0.61	477	16.4	0.14	0.53	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	27 Feb 2018	0902_SW001_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	6.28	*11.4*	2.44	**13.8**	56.7	0.30	0.28	0.27	*<0.02*	0.9	2.07	2.51	3.10	7.01	5.58	0.39	0.13	0.03	*<0.05*	*<0.05*	8.06	5.97	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	04 Nov 2019	0902_SW001_191104	Normal	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	8.32	*62.8*	3.99	**66.8**	230	0.71	0.51	0.48	1.23	1.9	3.08	3.81	3.34	15.1	47.0	14.1	4.05	0.23	0.10	*<0.05*	8.72	49.2	0.46	0.42	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	04 Nov 2019	0902_QC100_191104	Field_D	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	8.80	*77.9*	4.08	**82.0**	279	0.70	0.52	0.43	2.01	2.0	3.08	4.01	3.42	13.6	49.6	36.2	11.3	0.75	0.21	*<0.05*	8.88	49.5	1.56	0.92	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	13 Nov 2020	0902_SW001_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	4.98	*14.6*	3.49	**18.1**	71.0	0.67	0.42	0.24	0.10	2.2	4.08	5.54	3.16	9.32	5.78	0.59	0.20	0.05	0.05	*<0.05*	7.36	8.20	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	13 Nov 2020	0902_QC108_201113	Field_D	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	5.08	*41.2*	3.48	**44.7**	135	0.68	0.46	0.31	0.49	2.3	3.78	5.00	3.17	9.36	13.4	6.65	4.85	1.22	0.82	*<0.05*	7.36	24.2	0.59	0.24	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	07 May 2021	0902_SW001_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	0.85	*7.54*	2.73	**10.3**	17.8	0.40	0.34	0.18	0.14	0.5	1.16	1.53	0.54	0.45	0.46	0.19	0.08	*<0.02*	*<0.05*	*<0.05*	0.27	0.42	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	26 Nov 2021	0902_SW001_211126	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.23	*4.10*	0.90	**5.00**	7.54	0.27	0.12	0.05	0.04	0.3	0.43	0.62	0.13	0.10	0.09	0.04	0.02	*<0.02*	*<0.05*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	26 Nov 2021	0902_QC208_211126	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	0.23	*4.1*	0.88	**5.0**	7.5	0.21	0.12	0.06	*<0.02*	0.46	0.42	0.48	0.14	0.11	0.09	0.03	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.04	0.1	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW001	24 May 2022	0902_SW001_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	1.57	*23.0*	9.28	**32.3**	49.2	1.67	1.65	0.48	0.13	1.0	1.96	3.78	1.67	0.68	0.70	0.28	0.06	*<0.02*	*<0.05*	*<0.05*	0.33	0.89	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW001	08 May 2023	0902_SW001_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	3.69	*17.0*	3.12	**20.1**	54.6	0.56	0.50	0.43	0.17	1.3	2.68	4.14	2.89	3.60	3.28	1.63	1.06	0.19	0.15	*<0.05*	0.96	7.09	0.12	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	04 Jul 2017	0902_SW002_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	5.28	*53.5*	30.4	**83.9**	267	4.08	3.62	2.55	*<0.02*	3.0	3.70	24.7	2.54	3.56	1.84	0.16	0.09	*<0.02*	*<0.05*	0.06	123	4.85	*<0.05*	0.05	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	15 Jan 2018	0902_SW002_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	2.59	*24.4*	6.18	**30.6**	50.0	1.28	0.81	0.48	0.03	0.6	1.20	3.13	1.39	1.70	0.77	0.07	*<0.02*	*<0.02*	*<0.05*	*<0.05*	4.22	1.12	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	04 Nov 2019	0902_SW002_191104	Normal	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	0.74	*10.9*	2.55	**13.4**	22.3	0.45	0.42	0.23	0.02	0.4	0.66	1.12	0.42	0.93	0.98	0.19	0.02	*<0.02*	*<0.05*	*<0.05*	0.72	1.51	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 May 2020	0902_SW002_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.30	*13.7*	2.94	**16.6**	19.8	0.36	0.34	0.36	0.02	0.1	0.25	0.72	0.13	0.08	0.17	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	0.19	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140704	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.02	*0.47*	0.17	0.64	0.98	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	0.03	0.10	0.02	*<0.02*	0.02	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140719	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.04	*0.93*	0.38	1.31	1.88	0.08	0.07	0.03	*<0.02*	*<0.1*	0.06	0.17	0.03	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140734	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.27	*4.60*	1.23	**5.83**	10.5	0.26	0.23	0.10	*<0.02*	0.1	0.28	0.63	0.18	0.38	0.70	0.19	0.05	*<0.02*	*<0.05*	*<0.05*	0.26	1.01	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140749	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.59	*5.19*	1.29	**6.48**	14.5	0.29	0.22	0.13	*<0.02*	0.1	0.46	0.88	0.42	0.80	1.16	0.29	0.08	*<0.02*	*<0.05*	*<0.05*	0.54	2.05	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140804	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.64	*4.66*	1.19	**5.85**	13.6	0.23	0.22	0.10	*<0.02*	0.2	0.52	0.96	0.48	0.69	1.07	0.20	0.07	*<0.02*	*<0.05*	*<0.05*	0.48	1.88	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140834	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.55	*3.93*	0.94	**4.87**	10.7	0.19	0.16	0.08	*<0.02*	0.2	0.41	0.77	0.39	0.52	0.77	0.19	0.08	*<0.02*	*<0.05*	*<0.05*	0.43	1.12	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140904	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.62	*4.58*	1.58	**6.16**	12.4	0.30	0.26	0.13	*<0.02*	0.2	0.48	0.96	0.45	0.54	0.71	0.12	0.04	*<0.02*	*<0.05*	*<0.05*	0.43	1.02	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007140934	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.80	*13.0*	2.62	**15.6**	24.1	0.45	0.42	0.23	0.04	0.3	0.64	1.32	0.49	0.65	0.92	0.19	0.07	*<0.02*	*<0.05*	*<0.05*	0.48	1.43	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007141034	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.82	*20.8*	3.65	**24.4**	34.2	0.66	0.62	0.30	0.04	0.4	0.74	1.62	0.50	0.62	1.01	0.21	0.07	*<0.02*	*<0.05*	*<0.05*	0.51	1.65	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_SW002_2007141134	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.74	*16.8*	3.67	**20.5**	29.7	0.68	0.65	0.33	0.06	0.3	0.70	1.54	0.45	0.62	0.85	0.23	0.09	*<0.02*	*<0.05*	*<0.05*	0.42	1.52	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_QC105_200714	Field_D	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.04	*0.89*	0.36	1.25	1.80	0.08	0.07	0.02	*<0.02*	*<0.1*	0.06	0.16	0.03	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	14 Jul 2020	0902_QC106_200714	Field_D	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.60	*3.98*	1.10	**5.08**	11.7	0.20	0.19	0.08	*<0.02*	0.2	0.45	0.80	0.41	0.52	0.84	0.19	0.08	*<0.02*	*<0.05*	*<0.05*	0.48	1.55	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071145	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.52	*10.0*	5.04	**15.0**	19.7	0.66	0.70	0.36	*<0.02*	0.2	0.40	1.32	0.29	0.05	0.04	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	0.05	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071200	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.53	*10.6*	4.72	**15.3**	19.8	0.63	0.71	0.35	*<0.02*	0.2	0.39	1.29	0.28	0.04	0.04	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071215	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.54	*10.4*	4.81	**15.2**	19.7	0.64	0.70	0.37	*<0.02*	0.2	0.40	1.28	0.27	0.05	0.04	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071230	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.46	*8.40*	4.02	**12.4**	16.2	0.52	0.56	0.29	*<0.02*	0.2	0.34	1.06	0.23	0.04	0.03	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071300	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.13	*3.23*	1.02	**4.25**	5.28	0.14	0.13	0.07	*<0.02*	*<0.1*	0.10	0.31	0.07	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071330	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.13	*2.60*	0.86	**3.46**	4.44	0.13	0.12	0.06	*<0.02*	*<0.1*	0.10	0.27	0.07	0.02	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071345	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.08	*2.01*	0.64	**2.65**	3.32	0.10	0.08	0.04	*<0.02*	*<0.1*	0.06	0.20	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071400	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.06	*1.74*	0.50	**2.24**	2.80	0.08	0.07	0.04	*<0.02*	*<0.1*	0.04	0.17	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071500	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.44	*2.94*	0.85	**3.79**	7.81	0.16	0.14	0.06	*<0.02*	0.1	0.29	0.61	0.32	0.35	0.44	0.14	0.08	*<0.02*	*<0.05*	*<0.05*	0.32	0.57	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	07 Aug 2020	0902_SW002_2008071600	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.43	*9.06*	2.03	**11.1**	15.9	0.35	0.35	0.16	0.02	0.2	0.34	0.90	0.28	0.28	0.40	0.12	0.05	*<0.02*	*<0.05*	*<0.05*	0.26	0.64	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	08 Sep 2020	0902_SW002_200908	Normal	ES2031786	NSW_0902_PFASMGMT	BaselineEvent#2	1.17	*44.4*	9.40	**53.8**	65.4	1.35	1.55	1.40	0.35	0.4	0.85	2.67	0.56	0.11	0.18	0.36	0.12	*<0.02*	*<0.05*	*<0.05*	0.23	0.23	*<0.05*	0.10	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	08 Sep 2020	0902_QC107_200908	Field_D	ES2031786	NSW_0902_PFASMGMT	BaselineEvent#2	1.14	*46.7*	10.8	**57.5**	70.2	1.46	1.76	1.86	0.41	0.4	0.90	2.83	0.60	0.12	0.16	0.30	0.11	*<0.02*	*<0.05*	*<0.05*	0.33	0.22	*<0.05*	0.09	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	28 Oct 2020	0902_SW002_2010281630	Normal	ES2040506	NSW_0902_PFASMGMT	BaselineEvent#3	0.99	*27.7*	15.4	**43.1**	58.5	2.67	2.86	1.24	0.02	0.7	1.16	4.78	0.38	0.10	0.09	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.19	0.14	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	13 Nov 2020	0902_SW002_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.36	*16.5*	5.92	**22.4**	27.1	0.66	0.69	0.40	*<0.02*	0.2	0.36	1.63	0.20	0.04	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	0.06	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	13 Nov 2020	0902_QC208_201113	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP	0.37	*11*	4.9	**15.9**	-	0.69	0.6	0.3	*<0.01*	0.24	0.36	1.4	0.19	0.034	0.033	0.016	*<0.01*	*<0.02*	*<0.02*	*<0.01*	0.051	0.048	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101290800	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	0.11	*3.33*	1.12	**4.45**	5.65	0.18	0.15	0.08	*<0.02*	*<0.1*	0.10	0.39	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101290845	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	0.12	*3.42*	1.14	**4.56**	5.78	0.18	0.14	0.09	*<0.02*	*<0.1*	0.10	0.41	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101290930	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	0.12	*3.84*	1.25	**5.09**	6.41	0.19	0.15	0.10	*<0.02*	*<0.1*	0.11	0.44	0.08	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291015	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	0.10	*3.70*	1.27	**4.97**	6.28	0.20	0.16	0.10	*<0.02*	*<0.1*	0.10	0.43	0.08	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291100	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	0.13	*4.68*	1.43	**6.11**	7.55	0.22	0.17	0.10	*<0.02*	*<0.1*	0.12	0.47	0.08	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.13	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291145	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	0.23	*3.83*	1.22	**5.05**	7.15	0.18	0.14	0.09	*<0.02*	*<0.1*	0.18	0.59	0.16	0.10	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.30	0.08	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291230	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	0.12	*2.38*	0.75	**3.13**	4.39	0.12	0.09	0.05	*<0.02*	*<0.1*	0.11	0.34	0.09	0.05	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.20	0.06	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291315	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	0.14	*2.52*	0.89	**3.41**	4.78	0.13	0.12	0.06	*<0.02*	*<0.1*	0.12	0.34	0.06	0.06	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.25	0.06	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291400	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	0.18	*3.39*	0.93	**4.32**	6.10	0.14	0.12	0.08	*<0.02*	*<0.1*	0.16	0.40	0.09	0.11	0.06	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.31	0.11	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291445	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	1.05	*8.04*	1.93	**9.97**	21.0	0.26	0.23	0.20	0.04	0.2	0.52	1.13	0.39	1.61	1.42	0.27	0.05	*<0.02*	*<0.05*	*<0.05*	1.09	2.58	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_SW002_2101291530	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	0.44	*4.04*	0.94	**4.98**	10.5	0.13	0.12	0.10	0.02	*<0.1*	0.22	0.49	0.18	0.75	0.82	0.20	0.04	*<0.02*	*<0.05*	*<0.05*	0.49	1.56	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	29 Jan 2021	0902_QC109_210129	Field_D	ES2103038	NSW_0902_PFASMGMT	Event#3	0.11	*3.29*	1.11	**4.40**	5.57	0.17	0.14	0.09	*<0.02*	*<0.1*	0.10	0.39	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*

Table T5 - Surface Water Historical Analytical Results

| | | | | | | | | Nutrients | | | | | | | | | | | | | | Inorganics | | | | | | | | | | | | | |

Table T5 - Surface Water Historical Analytical Results

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Table T5 - Surface Water Historical Analytical Results

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																														
SW002	26 Nov 2021	0902_SW002_2111261050	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	0.12	*4.39*	1.01	**5.40**	6.87	0.26	0.16	0.08	*<0.02*	0.1	0.18	0.43	0.06	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111261120	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	0.13	*5.78*	1.17	**6.95**	8.69	0.29	0.18	0.10	0.02	0.2	0.19	0.48	0.07	0.05	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111261220	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	0.14	*6.00*	1.28	**7.28**	9.09	0.32	0.19	0.11	0.02	0.1	0.20	0.57	0.07	0.05	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_SW002_2111261320	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	0.15	*5.94*	1.45	**7.39**	9.39	0.35	0.21	0.11	0.02	0.2	0.22	0.58	0.08	0.05	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_QC100_211126	Field_D	ES2143577	NSW_0902_PFASMGMT	Event#4	0.11	*4.87*	0.89	**5.76**	7.15	0.24	0.14	0.08	0.02	0.1	0.18	0.40	0.05	0.04	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	26 Nov 2021	0902_QC200_211126	Interlab_D	284669	NSW_0902_PFASMGMT	Event#4	0.11	*4.3*	1.2	**5.5**	6.8	0.18	0.15	0.08	*<0.02*	0.2	0.2	0.34	0.07	0.05	0.03	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.01	0.02	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW002	29 Nov 2021	0902_SW002_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.95	*41.6*	15.0	**56.6**	67.8	1.86	1.89	1.00	0.02	0.4	0.86	3.58	0.49	0.10	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	18 Jan 2022	0902_SW002_220118	Normal	ES2201929	NSW_0902_PFASMGMT	BaselineEvent#4	1.37	*46.6*	17.4	**64.0**	81.0	2.52	3.11	1.73	0.02	0.6	1.04	5.55	0.70	0.09	0.04	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	0.08	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	21 Feb 2022	0902_SW002_220221	Normal	ES2206846	NSW_0902_PFASMGMT	FFTG_Baseline_2203	1.25	*21.2*	8.20	**29.4**	44.0	1.44	1.50	0.83	0.03	0.5	1.18	3.40	1.12	0.61	0.42	0.09	0.05	*<0.02*	*<0.05*	*<0.05*	0.79	1.41	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	21 Feb 2022	0902_SW002_2202211800	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	1.30	*25.6*	10.7	**36.3**	50.6	1.54	1.36	0.50	0.05	0.6	1.09	3.87	0.84	0.61	0.63	0.16	0.05	*<0.02*	*<0.05*	*<0.05*	0.58	1.10	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	21 Feb 2022	0902_SW002_2202212000	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.30	*8.05*	2.91	**11.0**	14.5	0.51	0.37	0.16	*<0.02*	0.1	0.26	1.07	0.20	0.08	0.11	0.05	0.02	*<0.02*	*<0.05*	*<0.05*	0.12	0.21	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	22 Feb 2022	0902_SW002_2202221000	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	1.19	*25.0*	9.92	**34.9**	49.0	1.72	1.54	0.68	0.04	0.6	1.02	3.82	0.76	0.47	0.50	0.14	0.05	*<0.02*	*<0.05*	*<0.05*	0.44	1.07	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	22 Feb 2022	0902_SW002_2202221200	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.28	*8.23*	3.15	**11.4**	14.8	0.53	0.39	0.14	*<0.02*	0.1	0.24	1.03	0.18	0.07	0.09	0.05	0.02	*<0.02*	*<0.05*	*<0.05*	0.11	0.20	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	22 Feb 2022	0902_SW002_2202221400	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.27	*10.7*	2.53	**13.2**	17.0	0.42	0.30	0.17	0.04	0.2	0.29	0.84	0.16	0.17	0.22	0.09	0.03	*<0.02*	*<0.05*	*<0.05*	0.10	0.50	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	22 Feb 2022	0902_SW002_2202221800	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.66	*15.0*	7.81	**22.8**	32.1	1.72	1.41	0.37	0.02	0.4	0.61	2.88	0.40	0.14	0.14	0.06	0.02	*<0.02*	*<0.05*	*<0.05*	0.15	0.28	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	22 Feb 2022	0902_SW002_2202222200	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.62	*16.2*	8.62	**24.8**	34.4	1.69	1.44	0.53	0.03	0.4	0.62	2.96	0.41	0.14	0.15	0.07	0.03	*<0.02*	*<0.05*	*<0.05*	0.16	0.30	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	23 Feb 2022	0902_SW002_2202230200	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.66	*16.2*	8.80	**25.0**	34.8	1.75	1.49	0.44	0.02	0.4	0.64	3.09	0.43	0.15	0.14	0.06	0.02	*<0.02*	*<0.05*	*<0.05*	0.17	0.31	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	23 Feb 2022	0902_SW002_2202230400	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	1.10	*26.7*	10.7	**37.4**	53.4	2.27	1.84	0.81	0.10	0.7	1.11	3.68	0.72	0.54	0.66	0.26	0.12	0.02	*<0.05*	*<0.05*	0.35	1.68	*<0.05*	0.04	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	23 Feb 2022	0902_SW002_2202231400	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	1.13	*30.8*	11.9	**42.7**	59.5	2.44	1.99	0.82	0.09	0.7	1.18	4.02	0.75	0.56	0.68	0.26	0.11	0.02	*<0.05*	*<0.05*	0.33	1.71	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	27 May 2022	0902_SW002_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	2.98	*66.1*	40.5	**107**	137	4.80	5.75	2.96	0.02	1.4	*<0.02*	9.94	2.13	0.18	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.19	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	08 Nov 2022	0902_SW002_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	1.07	*26.8*	16.3	**43.1**	55.1	2.02	2.42	1.26	*<0.02*	0.5	0.77	3.23	0.62	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW002	08 May 2023	0902_SW002_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.30	*8.65*	3.13	**11.8**	14.8	0.50	0.48	0.26	*<0.02*	0.1	0.23	0.82	0.16	0.03	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	04 Jul 2017	0902_SW003_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	3.34	*52.7*	23.4	**76.1**	157	3.95	3.44	1.70	*<0.02*	2.4	2.63	15.1	2.27	0.98	0.57	0.04	*<0.02*	*<0.02*	*<0.05*	*<0.05*	43.4	1.08	*<0.05*	0.05	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	15 Jan 2018	0902_SW003_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	2.10	*22.2*	6.10	**28.3**	45.5	0.87	0.71	0.46	0.05	0.5	1.82	3.17	1.53	1.20	0.59	0.06	*<0.02*	*<0.02*	*<0.05*	*<0.05*	3.45	0.64	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	15 Jan 2018	0902_QC212_180115	Interlab_D	183570	NSW_0902_PFAS	HHRA	1.7	*14*	4.7	**18.7**	-	0.73	0.68	0.48	*<0.02*	0.60	1.5	2.6	1.4	0.97	0.30	0.02	*<0.05*	*<0.1*	*<0.5*	*<0.01*	2.9	0.44	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW003	27 Feb 2018	0902_SW003_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	2.22	*37.2*	16.2	**53.4**	76.7	3.47	2.70	1.33	*<0.02*	0.7	2.26	4.57	1.60	1.02	0.45	0.04	*<0.02*	*<0.02*	*<0.05*	*<0.05*	2.21	0.72	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	27 Feb 2018	0902_QC120_270218	Field_D	ES1806139	NSW_0902_PFAS	DSI	1.98	*35.0*	17.1	**52.1**	73.5	3.16	2.43	1.28	*<0.02*	0.8	2.08	4.08	1.37	0.84	0.41	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	2.31	0.65	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	11 Nov 2019	0902_SW003_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	0.77	*15.8*	8.37	**24.2**	32.7	1.21	0.94	0.50	*<0.02*	0.4	0.82	2.24	0.37	0.33	0.26	0.05	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.44	0.24	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	14 May 2020	0902_SW003_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.65	*21.2*	6.56	**27.8**	34.9	0.87	0.90	0.68	0.05	0.2	0.50	1.68	0.26	0.26	0.39	0.05	0.02	*<0.02*	*<0.05*	*<0.05*	0.24	0.34	*<0.05*	0.02	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	13 Nov 2020	0902_SW003_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.38	*15.7*	5.85	**21.6**	26.3	0.66	0.71	0.41	0.05	0.2	0.35	1.50	0.17	0.06	0.06	0.04	0.03	*<0.02*	*<0.05*	*<0.05*	0.06	0.09	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	05 May 2021	0902_SW003_210505	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.58	*6.41*	2.82	**9.23**	17.2	1.63	0.86	0.43	0.03	0.4	0.70	1.87	0.38	0.34	0.18	0.05	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.33	0.14	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	29 Nov 2021	0902_SW003_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.84	*33.6*	13.5	**47.1**	57.2	1.63	1.71	0.89	0.03	0.4	0.80	3.18	0.45	0.10	0.04	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	29 Nov 2021	0902_QC211_211129	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	1.0	*29*	12	**41**	52	1.6	1.5	0.83	*<0.02*	0.67	0.93	3.6	0.58	0.12	0.04	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.07	0.04	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW003	30 May 2022	0902_SW003_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	3.49	*74.0*	54.9	**129**	167	5.86	5.64	3.20	0.07	1.4	3.28	12.4	2.04	0.23	0.09	0.05	0.03	*<0.02*	*<0.05*	*<0.05*	0.25	0.11	*<0.05*	0.04	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	30 May 2022	0902_QC109_220530	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	2.69	*60.6*	36.7	**97.3**	128	4.47	5.19	2.47	0.09	1.3	2.19	9.33	2.11	0.20	0.08	0.04	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.20	0.12	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	08 Nov 2022	0902_SW003_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	1.25	*28.6*	17.6	**46.2**	60.4	2.25	2.77	1.57	0.03	0.5	0.91	3.83	0.72	0.10	0.06	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	0.08	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW003	08 May 2023	0902_SW003_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.39	*9.42*	3.87	**13.3**	17.4	0.66	0.64	0.31	0.02	0.2	0.33	1.08	0.20	0.09	0.07	0.03	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	04 Jul 2017	0902_SW005_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	*<0.01*	*0.08*	0.04	0.12	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	15 Jan 2018	0902_SW005_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	*<0.01*	*0.20*	0.07	0.27	0.27	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	08 Nov 2019	0902_SW005_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*0.11*	0.02	0.13	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	14 May 2020	0902_SW005_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.08*	0.07	0.15	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	14 May 2020	0902_QC106_200514	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.11*	0.07	0.18	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	12 Nov 2020	0902_SW005_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*0.04*	0.02	0.06	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	12 Nov 2020	0902_QC104_201112	Field_D	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*0.04*	*<0.02*	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	06 May 2021	0902_SW005_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*0.05*	0.08	0.13	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	25 Nov 2021	0902_SW005_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.16*	0.10	0.26	0.29	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	26 May 2022	0902_SW005_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.01	*0.19*	0.20	0.39	0.42	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	11 Nov 2022	0902_SW005_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.19*	0.08	0.27	0.27	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW005	11 May 2023	0902_SW005_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*0.20*	0.08	0.28	0.28	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	04 Jul 2017	0902_SW007_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.01	*0.12*	0.11	0.23	0.29	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	15 Jan 2018	0902_SW007_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	*<0.01*	*0.10*	0.08	0.18	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	08 Nov 2019	0902_SW007_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*0.12*	0.14	0.26	0.32	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	14 May 2020	0902_SW007_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.05*	0.09	0.14	0.18	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW007	14 May 2020	0902_QC206_200514	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.01*	*0.038*	0.064	0.102	-	0.017	0.012	*<0.01*	*<0.01*	*<0.05*	*<0.02*	0.014	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
SW007	12 Nov 2020	0902_SW007_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.01*	*0.10*	0.06	0.16	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*

Table T5 - Surface Water Historical Analytical Results

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Table T5 - Surface Water Historical Analytical Results

							PFAS					**PFAS - Perfluoroalkyl Sulfonic Acids**				**PFAS - Perfluoroalkyl Carboxylic Acids**											**PFAS - (n:2) Fluorotelomer Sulfonic Acids**				**PFAS - Perfluoroalkyl Sulfonamides**						
							Perfluorooctanoic acid (PFOA)	**Perfluorooctane sulfonic acid (PFOS)**	**Perfluorohexane sulfonic acid (PFHxS)**	**Sum of PFHxS and PFOS**	**Sum of PFAS**	**Perfluorobutane sulfonic acid (PFBS)**	**Perfluoropentane sulfonic acid (PFPeS)**	**Perfluoroheptane sulfonic acid (PFHpS)**	**Perfluorodecane sulfonic acid (PFDS)**	**Perfluorobutanoic acid (PFBA)**	**Perfluoropentanoic acid (PFPeA)**	**Perfluorohexanoic acid (PFHxA)**	**Perfluoroheptanoic acid (PFHpA)**	**Perfluorononanoic acid (PFNA)**	**Perfluorodecanoic acid (PFDA)**	**Perfluoroundecanoic acid (PFUnDA)**	**Perfluorododecanoic acid (PFDoDA)**	**Perfluorotridecanoic acid (PFTrDA)**	**Perfluorotetradecanoic acid (PFTeDA)**	**4:2 Fluorotelomer sulfonic acid (4:2 FTS)**	**6:2 Fluorotelomer sulfonic acid (6:2 FTS)**	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	**Perfluorooctane sulfonamide (FOSA)**	**N-Methyl perfluorooctane sulfonamide (MeFOSA)**	**N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)**	**N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)**	**N-Ethyl perfluorooctane sulfonamide (EtFOSA)**	**N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)**	**N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)**
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water							**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																														
SW008	13 May 2020	0902_SW008_200513	Normal	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	0.013	*0.072*	0.1	0.172	-	0.022	0.017	*<0.01*	*<0.01*	*<0.05*	*<0.02*	0.015	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
SW008	13 May 2020	0902_QC208_200513	Interlab_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.01	*0.12*	0.14	0.26	0.35	0.06	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*
SW008	12 Nov 2020	0902_SW008_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.02	*0.20*	0.08	0.28	0.30	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	06 May 2021	0902_SW008_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.02	*0.19*	0.35	0.54	0.75	0.07	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	29 Nov 2021	0902_SW008_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.08*	0.05	0.13	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	29 Nov 2021	0902_QC113_211129	Field_D	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.11*	0.05	0.16	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	26 May 2022	0902_SW008_220526	Normal	ES2218422	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*0.09*	0.24	0.33	0.41	0.04	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	11 Nov 2022	0902_SW008_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	0.01	*0.20*	0.16	0.36	0.44	0.02	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	11 Nov 2022	0902_QC113_221111	Field_D	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	0.02	*0.23*	0.16	0.39	0.44	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW008	11 May 2023	0902_SW008_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*0.12*	0.04	0.16	0.16	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	03 Jul 2017	0902_SW009_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.54	*16.3*	4.98	**21.3**	25.6	0.76	0.76	0.42	*<0.02*	*<0.1*	0.22	0.97	0.23	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.28	0.06	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	15 Jan 2018	0902_SW009_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.06	*1.37*	0.45	1.82	2.42	0.06	0.05	0.03	*<0.02*	*<0.1*	0.06	0.15	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.16	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	15 Jan 2018	0902_QC113_180115	Field_D	ES1802266	NSW_0902_PFAS	HHRA	0.06	*1.38*	0.44	1.82	2.38	0.05	0.05	0.04	*<0.02*	*<0.1*	0.05	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.15	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	02 Feb 2018	0902_SW09_050218	Normal	ES1804510	NSW_0902_PFAS	ERA	0.06	*1.10*	0.31	1.41	1.83	0.04	0.03	0.02	*<0.02*	*<0.1*	*<0.02*	0.13	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	02 Feb 2018	0902_SW09_050218_a	Normal	ES1804510	NSW_0902_PFAS	ERA	0.13	*2.91*	0.67	**3.58**	4.68	0.07	0.06	0.05	*<0.02*	*<0.1*	0.08	0.26	0.07	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.23	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	27 Feb 2018	0902_SW009_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.05	*2.91*	0.49	**3.40**	3.85	0.07	0.05	0.05	*<0.02*	*<0.1*	0.03	0.11	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	04 Nov 2019	0902_SW009_191104	Normal	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	0.05	*1.06*	0.35	1.41	1.91	0.04	0.05	0.03	*<0.02*	*<0.1*	0.06	0.13	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 May 2020	0902_SW009_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.02	*0.53*	0.25	0.78	0.98	0.04	0.02	*<0.02*	0.02	*<0.1*	0.03	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 May 2020	0902_QC109_200514	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.04	*0.81*	0.43	1.24	1.62	0.06	0.04	0.03	0.04	*<0.1*	0.04	0.11	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	11 Jun 2020	0902_SW009_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_BaselineEvent#1+	0.12	*2.46*	1.12	**3.58**	5.29	0.14	0.21	0.08	*<0.02*	*<0.1*	0.12	0.46	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.51	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	11 Jun 2020	0902_QC101_200611	Field_D	ES2020394	NSW_0902_PFASMGMT	202006_BaselineEvent#1+	0.13	*2.54*	1.20	**3.74**	5.56	0.13	0.22	0.09	*<0.02*	*<0.1*	0.13	0.50	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.54	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140650	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.08	*1.99*	0.61	**2.60**	3.33	0.07	0.07	0.04	*<0.02*	*<0.1*	0.08	0.19	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.17	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140715	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.08	*2.55*	0.66	**3.21**	3.95	0.07	0.07	0.05	*<0.02*	*<0.1*	0.07	0.18	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.18	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140730	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.08	*2.20*	0.67	**2.87**	3.59	0.07	0.08	0.05	*<0.02*	*<0.1*	0.07	0.18	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.16	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140745	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.07	*2.43*	0.60	**3.03**	3.66	0.06	0.07	0.04	0.02	*<0.1*	0.06	0.16	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140800	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.03	*0.96*	0.29	1.25	1.45	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	0.03	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140815	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.03	*0.74*	0.25	0.99	1.16	0.04	0.02	*<0.02*	*<0.02*	*<0.1*	0.02	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140845	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.03	*0.73*	0.26	0.99	1.18	0.04	0.02	*<0.02*	*<0.02*	*<0.1*	0.03	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140915	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.02	*0.69*	0.34	1.03	1.33	0.07	0.05	*<0.02*	*<0.02*	*<0.1*	0.04	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007140945	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.02	*0.67*	0.34	1.01	1.32	0.07	0.05	*<0.02*	*<0.02*	*<0.1*	0.04	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007141045	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.03	*1.14*	0.44	1.58	2.06	0.06	0.06	0.03	*<0.02*	*<0.1*	0.05	0.15	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_SW009_2007141145	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.04	*1.54*	0.45	1.99	2.51	0.06	0.05	0.03	*<0.02*	*<0.1*	0.05	0.15	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	14 Jul 2020	0902_QC204_200714	Interlab_D	246965	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.07	*2.3*	0.79	**3.1**	4.0	0.07	0.08	0.05	*<0.02*	0.08	0.08	0.19	0.04	0.01	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.23	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.1*	*<0.02*	*<0.5*
SW009	14 Jul 2020	0902_QC205_200714	Interlab_D	246965	NSW_0902_PFASMGMT	202007_MassFluxEvent1	0.03	*0.95*	0.31	1.3	1.5	0.03	0.03	0.02	*<0.02*	0.03	0.03	0.07	0.02	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.04	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	07 Aug 2020	0902_SW009_2008071245	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.27	*4.74*	2.53	**7.27**	9.58	0.32	0.34	0.15	*<0.02*	0.1	0.21	0.73	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071300	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.26	*5.28*	2.40	**7.68**	9.94	0.33	0.31	0.14	*<0.02*	0.1	0.21	0.72	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071315	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.26	*5.73*	2.48	**8.21**	10.5	0.34	0.33	0.15	*<0.02*	0.1	0.20	0.74	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071330	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.28	*4.70*	2.65	**7.35**	9.78	0.34	0.35	0.15	*<0.02*	0.1	0.21	0.78	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071345	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.29	*5.76*	2.60	**8.36**	10.8	0.36	0.35	0.15	*<0.02*	0.1	0.23	0.79	0.12	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.09	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071415	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.28	*7.92*	2.53	**10.4**	12.8	0.33	0.34	0.15	*<0.02*	0.1	0.21	0.77	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.09	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071445	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.20	*4.99*	1.82	**6.81**	8.42	0.23	0.23	0.11	*<0.02*	*<0.1*	0.15	0.54	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071515	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.15	*4.64*	1.30	**5.94**	7.06	0.17	0.16	0.08	0.02	*<0.1*	0.10	0.38	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071615	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.15	*4.92*	1.34	**6.26**	7.43	0.18	0.17	0.08	0.03	*<0.1*	0.11	0.39	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_SW009_2008071715	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.20	*5.37*	1.95	**7.32**	9.06	0.26	0.23	0.12	0.03	*<0.1*	0.16	0.57	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	07 Aug 2020	0902_QC206_200807	Interlab_D	248794	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.25	*4.9*	2.6	**7.6**	9.8	0.30	0.29	0.17	*<0.02*	0.1	0.2	0.72	0.11	0.01	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.11	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	07 Aug 2020	0902_QC207_200807	Interlab_D	248794	NSW_0902_PFASMGMT	202008_MassFluxEvent2	0.25	*5.0*	2.4	**7.4**	9.6	0.31	0.27	0.15	*<0.02*	0.1	0.2	0.68	0.11	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.10	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	08 Sep 2020	0902_SW009_200908	Normal	ES2031786	NSW_0902_PFASMGMT	BaselineEvent#2	0.19	*5.21*	1.47	**6.68**	8.09	0.18	0.18	0.17	*<0.02*	*<0.1*	0.12	0.39	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	08 Sep 2020	0902_QC108_200908	Field_D	ES2031786	NSW_0902_PFASMGMT	BaselineEvent#2	0.18	*5.20*	1.49	**6.69**	8.04	0.16	0.19	0.14	*<0.02*	*<0.1*	0.11	0.39	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	28 Oct 2020	0902_SW009_2010281650	Normal	ES2040506	NSW_0902_PFASMGMT	BaselineEvent#3	0.05	*2.98*	0.53	**3.51**	4.08	0.07	0.06	0.04	*<0.02*	*<0.1*	0.06	0.16	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	12 Nov 2020	0902_SW009_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.14	*3.57*	1.47	**5.04**	6.40	0.19	0.19	0.10	*<0.02*	*<0.1*	0.13	0.41	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.13	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101290845	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	0.15	*3.67*	1.29	**4.96**	6.27	0.13	0.11	0.11	*<0.02*	0.1	0.10	0.39	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.16	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101290915	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	0.15	*3.61*	1.30	**4.91**	6.28	0.14	0.11	0.11	*<0.02*	0.1	0.12	0.41	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.17	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Jan 2021	0902_SW009_2101291000	Normal

Table T5 - Surface Water Historical Analytical Results

| | | | | | | | | | Nutrients | | | | | | | | | | | | | | Inorganics | | | | | | | | | | | | | |

Table T5 - Surface Water Historical Analytical Results

									Metals																													
									TDS (filtered)	Total Suspended Solids	Aluminium	Aluminium (filtered)	Arsenic	Arsenic (filtered)	Cadmium	Cadmium (filtered)	Calcium (filtered)	Chromium (III+VI)	Chromium (III+VI) (filtered)	Copper	Copper (filtered)	Iron	Iron (filtered)	Lead	Lead (filtered)	Magnesium (filtered)	Manganese	Manganese (filtered)	Mercury	Mercury (filtered)	Nickel	Nickel (filtered)	Potassium (filtered)	Sodium (filtered)	Zinc	Zinc (filtered)
									mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR									5	5	0.005	0.005	0.001	0.001	0.0001	0.0001	0.5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.5	0.001	0.001	0.00005	0.00005	0.001	0.001	0.5	0.5	0.001	0.001
PFAS NEMP 2020 Recreational Water																																						
PFAS NEMP 2020 Freshwater 99%																																						
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																																
SW008	13 May 2020	0902_SW008_200513	Normal	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	0.017	-	-	-	-	-	-	-	-	-	3.4	-	-	-	-	0.78	-	-	-	-	-	-	-	-	-	-
SW008	13 May 2020	0902_QC208_200513	Interlab_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW008	12 Nov 2020	0902_SW008_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	0.12	-	-	-	-	-	-	-	-	-	-	-	-	3.06	-	-	-	-	0.381	-	-	-	-	-	-	-	-
SW008	06 May 2021	0902_SW008_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	5.33	-	-	-	-	1.26	-	-	-	-	-	-	-	-
SW008	29 Nov 2021	0902_SW008_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	0.72	-	-	-	-	-	-	11	-	-	-	-	-	1.04	-	-	7	-	0.157	-	-	-	-	8	30	-	-
SW008	29 Nov 2021	0902_QC113_211129	Field_D	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	0.69	-	-	-	-	-	-	11	-	-	-	-	-	1.21	-	-	7	-	0.160	-	-	-	-	8	30	-	-
SW008	26 May 2022	0902_SW008_220526	Normal	ES2218422	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	2.43	-	-	-	-	0.544	-	-	-	-	-	-	-	-
SW008	11 Nov 2022	0902_SW008_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	0.03	-	-	-	-	-	-	-	35	-	-	-	-	0.36	-	-	-	40	1.38	-	-	-	-	-	9	212	-	-
SW008	11 Nov 2022	0902_QC113_221111	Field_D	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	0.03	-	-	-	-	-	-	-	35	-	-	-	-	0.37	-	-	-	40	1.39	-	-	-	-	-	9	218	-	-
SW008	11 May 2023	0902_SW008_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	03 Jul 2017	0902_SW009_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	586	-	-	0.10	-	*<0.001*	-	*<0.0001*	19	-	*<0.001*	-	*<0.001*	-	0.31	-	*<0.001*	28	-	0.309	-	*<0.0001*	-	0.002	9	150	-	*<0.005*
SW009	15 Jan 2018	0902_SW009_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	15 Jan 2018	0902_QC113_180115	Field_D	ES1802266	NSW_0902_PFAS	HHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	02 Feb 2018	0902_SW09_050218	Normal	ES1804510	NSW_0902_PFAS	ERA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	02 Feb 2018	0902_SW09_050218_a	Normal	ES1804510	NSW_0902_PFAS	ERA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	27 Feb 2018	0902_SW009_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	04 Nov 2019	0902_SW009_191104	Normal	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	-	10	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	2	8	-	-
SW009	14 May 2020	0902_SW009_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	318	-	0.02	-	-	-	-	25	-	-	-	-	-	0.45	-	-	27	-	0.236	-	-	-	-	10	149	-	-
SW009	14 May 2020	0902_QC109_200514	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	0.45	-	-	-	-	0.236	-	-	-	-	-	-	-	-	-	-
SW009	11 Jun 2020	0902_SW009_200611	Normal	ES2020394	NSW_0902_PFASMGMT	202006_BaselineEvent#1+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	11 Jun 2020	0902_QC101_200611	Field_D	ES2020394	NSW_0902_PFASMGMT	202006_BaselineEvent#1+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_SW009_2007140650	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_SW009_2007140715	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_SW009_2007140730	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_SW009_2007140745	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_SW009_2007140800	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_SW009_2007140815	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_SW009_2007140845	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_SW009_2007140915	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_SW009_2007140945	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_SW009_2007141045	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_SW009_2007141145	Normal	ES2024124	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_QC204_200714	Interlab_D	246965	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	14 Jul 2020	0902_QC205_200714	Interlab_D	246965	NSW_0902_PFASMGMT	202007_MassFluxEvent1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	07 Aug 2020	0902_SW009_2008071245	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	07 Aug 2020	0902_SW009_2008071300	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	07 Aug 2020	0902_SW009_2008071315	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	07 Aug 2020	0902_SW009_2008071330	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	07 Aug 2020	0902_SW009_2008071345	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	07 Aug 2020	0902_SW009_2008071415	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	07 Aug 2020	0902_SW009_2008071445	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	07 Aug 2020	0902_SW009_2008071515	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	07 Aug 2020	0902_SW009_2008071615	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	07 Aug 2020	0902_SW009_2008071715	Normal	ES2027703	NSW_0902_PFASMGMT	202008_MassFluxEvent2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	07 Aug 2020	0902_QC206_200807	Interlab_D	248794	NSW_0902_PFASMGMT	202008_MassFluxEvent2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	07 Aug 2020	0902_QC207_200807	Interlab_D	248794	NSW_0902_PFASMGMT	202008_MassFluxEvent2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	08 Sep 2020	0902_SW009_200908	Normal	ES2031786	NSW_0902_PFASMGMT	BaselineEvent#2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	08 Sep 2020	0902_QC108_200908	Field_D	ES2031786	NSW_0902_PFASMGMT	BaselineEvent#2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	28 Oct 2020	0902_SW009_2010281650	Normal	ES2040506	NSW_0902_PFASMGMT	BaselineEvent#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	12 Nov 2020	0902_SW009_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	13	-	0.04	-	-	-	-	13	-	-	-	-	-	0.64	-	-	4	-	0.173	-	-	-	-	<1	18	-	-
SW009	29 Jan 2021	0902_SW009_2101290845	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_SW009_2101290915	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_SW009_2101291000	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_SW009_2101291045	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_SW009_2101291130	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_SW009_2101291215	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_SW009_2101291300	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_SW009_2101291345	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_SW009_2101291430	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_SW009_2101291515	Normal	ES2103038	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_QC111_210129	Field_D	ES2103038	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_QC112_210129	Field_D	ES2103038	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_QC210_210129	Interlab_D	260769	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	29 Jan 2021	0902_QC211_210129	Interlab_D	260769	NSW_0902_PFASMGMT	Event#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW009	06 May 2021	0902_SW009_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	0.13	-	-	-	-	-	-	-	-	-	-	0.26	-	-	-	-	-	0.089	-	-	-	-	-	-	-	-	-	-
SW009	26 Nov 2021	0902_SW009_2111260835	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T5 - Surface Water Historical Analytical Results

							PFAS					**PFAS - Perfluoroalkyl Sulfonic Acids**				**PFAS - Perfluoroalkyl Carboxylic Acids**											**PFAS - (n:2) Fluorotelomer Sulfonic Acids**				**PFAS - Perfluoroalkyl Sulfonamides**						
							Perfluorooctanoic acid (PFOA)	**Perfluorooctane sulfonic acid (PFOS)**	**Perfluorohexane sulfonic acid (PFHxS)**	**Sum of PFHxS and PFOS**	**Sum of PFAS**	**Perfluorobutane sulfonic acid (PFBS)**	**Perfluoropentane sulfonic acid (PFPeS)**	**Perfluoroheptane sulfonic acid (PFHpS)**	**Perfluorodecane sulfonic acid (PFDS)**	**Perfluorobutanoic acid (PFBA)**	**Perfluoropentanoic acid (PFPeA)**	**Perfluorohexanoic acid (PFHxA)**	**Perfluoroheptanoic acid (PFHpA)**	**Perfluorononanoic acid (PFNA)**	**Perfluorodecanoic acid (PFDA)**	**Perfluoroundecanoic acid (PFUnDA)**	**Perfluorododecanoic acid (PFDoDA)**	**Perfluorotridecanoic acid (PFTrDA)**	**Perfluorotetradecanoic acid (PFTeDA)**	**4:2 Fluorotelomer sulfonic acid (4:2 FTS)**	**6:2 Fluorotelomer sulfonic acid (6:2 FTS)**	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	**Perfluorooctane sulfonamide (FOSA)**	**N-Methyl perfluorooctane sulfonamide (MeFOSA)**	**N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)**	**N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)**	**N-Ethyl perfluorooctane sulfonamide (EtFOSA)**	**N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)**	**N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)**
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water							**10**			**2**																									
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																											
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																													
SW009	26 Nov 2021	0902_SW009_2111260850	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	*<0.01*	*0.30*	0.08	0.38	0.43	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111260905	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	0.01	*0.24*	0.06	0.30	0.33	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111260920	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	*<0.01*	*0.29*	0.07	0.36	0.39	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111260950	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	0.02	*0.60*	0.12	0.72	0.77	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111261020	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	0.02	*0.92*	0.09	1.01	1.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111261050	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	0.01	*0.39*	0.09	0.48	0.52	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111261120	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	0.01	*0.72*	0.08	0.80	0.83	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111261220	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	*<0.01*	*0.14*	0.03	0.17	0.17	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_SW009_2111261320	Normal	ES2143577	NSW_0902_PFASMGMT	Event#4	*<0.01*	*0.15*	0.06	0.21	0.23	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_QC101_211126	Field_D	ES2143577	NSW_0902_PFASMGMT	Event#4	*<0.01*	*0.32*	0.10	0.42	0.47	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 Nov 2021	0902_QC201_211126	Interlab_D	284669	NSW_0902_PFASMGMT	Event#4	0.01	*0.46*	0.11	0.57	0.61	*<0.01*	*<0.01*	0.01	*<0.02*	*<0.02*	*<0.02*	0.02	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	29 Nov 2021	0902_SW009_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.14	*6.19*	1.79	**7.98**	9.25	0.23	0.16	0.11	*<0.02*	*<0.1*	0.10	0.46	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	29 Nov 2021	0902_QC214_211129	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	0.15	*12*	1.7	**14**	15	0.16	0.18	0.13	*<0.02*	0.2	0.09	0.32	0.05	0.01	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW009	18 Jan 2022	0902_SW009_220118	Normal	ES2201929	NSW_0902_PFASMGMT	BaselineEvent#4	0.18	*4.42*	2.30	**6.72**	8.44	0.28	0.27	0.15	*<0.02*	*<0.1*	0.12	0.59	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.05	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	21 Feb 2022	0902_SW009_2202211800	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.08	*2.75*	0.92	**3.67**	4.51	0.12	0.10	0.04	*<0.02*	*<0.1*	0.07	0.27	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	21 Feb 2022	0902_SW009_2202212000	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.11	*3.32*	1.06	**4.38**	5.53	0.14	0.11	0.05	*<0.02*	*<0.1*	0.08	0.31	0.05	0.03	0.04	0.04	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	22 Feb 2022	0902_SW009_2202220800	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.09	*2.66*	0.99	**3.65**	4.53	0.14	0.10	0.04	*<0.02*	*<0.1*	0.07	0.29	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.11	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	22 Feb 2022	0902_SW009_2202221200	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.03	*0.91*	0.46	1.37	1.63	0.05	0.04	0.03	*<0.02*	*<0.10*	*<0.02*	0.11	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	22 Feb 2022	0902_SW009_2202221400	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.04	*1.55*	0.48	**2.03**	2.52	0.07	0.05	0.02	*<0.02*	*<0.1*	0.04	0.15	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	22 Feb 2022	0902_SW009_2202221600	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.04	*1.30*	0.58	1.88	2.36	0.09	0.06	*<0.02*	*<0.02*	*<0.1*	0.04	0.15	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	23 Feb 2022	0902_SW009_2202230000	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.05	*1.44*	0.68	**2.12**	2.72	0.11	0.08	0.03	*<0.02*	*<0.1*	0.04	0.20	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	23 Feb 2022	0902_SW009_2202230200	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.06	*1.68*	0.79	**2.47**	3.15	0.12	0.09	0.02	*<0.02*	*<0.1*	0.06	0.23	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	23 Feb 2022	0902_SW009_2202231000	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.05	*1.67*	0.66	**2.33**	2.93	0.11	0.08	0.02	*<0.02*	*<0.1*	0.05	0.20	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.06	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	23 Feb 2022	0902_SW009_2202231400	Normal	ES2206842	NSW_0902_PFASMGMT	Event#5	0.07	*2.36*	0.91	**3.27**	4.08	0.15	0.10	0.04	*<0.02*	*<0.1*	0.07	0.27	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	26 May 2022	0902_SW009_220526	Normal	ES2218422	NSW_0902_PFASOMP	202205_AECOM_OMP	0.42	*9.47*	5.27	**14.7**	19.0	0.70	0.73	0.32	*<0.02*	0.2	0.26	1.44	0.19	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	18 Nov 2022	0902_SW009_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.14*	0.08	0.22	0.24	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW009	11 May 2023	0902_SW009_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.02	*0.63*	0.17	0.80	0.90	0.02	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	04 Jul 2017	0902_SW011_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.53	*16.0*	6.28	**22.3**	27.3	0.77	0.74	0.46	*<0.02*	*<0.1*	0.27	1.17	0.24	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.72	0.07	*<0.05*	0.03	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	04 Jul 2017	0902_QC205_040717	Interlab_D	170811	NSW_0902_PFAS	Early Works Program	0.37	*9.0*	3.6	**12.6**	-	0.51	0.49	0.39	*<0.02*	0.2	0.23	0.95	0.14	0.02	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.73	0.03	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW011	15 Jan 2018	0902_SW011_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.52	*16.0*	3.40	**19.4**	24.0	0.42	0.38	0.34	0.03	0.2	0.50	1.24	0.23	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.40	0.21	*<0.05*	0.07	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	15 Jan 2018	0902_QC213_180115	Interlab_D	183570	NSW_0902_PFAS	HHRA	0.38	*12*	2.7	**14.7**	-	0.37	0.35	0.38	*<0.02*	0.30	0.41	1.0	0.23	0.04	0.03	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.39	0.15	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW011	27 Feb 2018	0902_SW011_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.10	*4.21*	0.74	**4.95**	5.68	0.09	0.08	0.09	*<0.02*	*<0.1*	0.07	0.16	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.08	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	27 Feb 2018	0902_QC220_270218	Interlab_D	186339	NSW_0902_PFAS	DSI	0.08	*2.7*	0.69	**3.39**	-	0.1	0.10	0.08	*<0.02*	0.09	0.1	0.19	0.04	*<0.01*	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.1	0.02	*<0.01*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW011	08 Nov 2019	0902_SW011_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	0.10	*3.26*	0.77	**4.03**	4.98	0.08	0.09	0.06	*<0.02*	*<0.1*	0.13	0.27	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.18	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	15 May 2020	0902_SW011_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.13	*4.56*	1.35	**5.91**	6.93	0.12	0.16	0.11	*<0.02*	*<0.1*	0.12	0.32	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	12 Nov 2020	0902_SW011_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.12	*4.02*	1.30	**5.32**	6.52	0.16	0.16	0.10	*<0.02*	*<0.1*	0.11	0.37	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.12	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	07 May 2021	0902_SW011_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	0.04	*1.38*	0.39	1.77	2.15	0.07	0.06	0.04	*<0.02*	*<0.1*	0.04	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	07 May 2021	0902_QC204_210507	Interlab_D	RN1314562	NSW_0902_PFASOMP	202105_AECOM_OMP	0.024	*1.3*	0.33	1.63	-	0.054	0.041	0.019	*<0.01*	*<0.05*	0.027	0.08	0.015	*<0.01*	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.02*	*<0.01*	0.022	*<0.01*	*<0.01*	*<0.01*	*<0.02*	*<0.01*	*<0.05*	*<0.02*	*<0.01*	*<0.05*
SW011	29 Nov 2021	0902_SW011_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.14	*6.22*	1.75	**7.97**	9.16	0.19	0.17	0.12	*<0.02*	*<0.1*	0.10	0.42	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	27 May 2022	0902_SW011_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.37	*12.0*	5.28	**17.3**	21.2	0.61	0.57	0.40	*<0.02*	0.1	0.32	1.27	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	27 May 2022	0902_QC205_220527	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	0.31	*7.9*	3.1	**11**	14	0.49	0.46	0.23	*<0.02*	0.1	0.2	0.86	0.15	0.01	*<0.02*	*<0.02*	*<0.05*	*<0.1*	*<0.5*	*<0.01*	0.06	*<0.02*	*<0.02*	*<0.1*	*<0.05*	*<0.02*	*<0.05*	*<0.1*	*<0.02*	*<0.5*
SW011	11 Nov 2022	0902_SW011_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	0.42	*11.9*	5.44	**17.3**	21.2	0.58	0.67	0.36	*<0.02*	0.1	0.28	1.16	0.20	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.10	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW011	11 May 2023	0902_SW011_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.04	*2.02*	0.40	**2.42**	2.80	0.06	0.04	0.03	*<0.02*	*<0.1*	0.04	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	0.07	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	03 Jul 2017	0902_SW013_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.10	*0.76*	2.23	**2.99**	4.55	0.36	0.34	0.05	*<0.02*	0.2	0.10	0.32	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	15 Jan 2018	0902_SW013_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.17	*0.87*	3.48	**4.35**	7.85	0.68	0.50	0.11	*<0.02*	0.7	0.26	0.90	0.18	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	08 Nov 2019	0902_SW013_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.01*	*0.04*	*<0.02*	0.04	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	14 May 2020	0902_SW013_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.01	*0.18*	0.22	0.40	0.52	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	0.02	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	12 Nov 2020	0902_SW013_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.01	*0.20*	0.22	0.42	0.52	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	06 May 2021	0902_SW013_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*0.16*	0.14	0.30	0.45	*<0.02*	*<0.02*	*<0.02*	*<0.02*	0.1	0.02	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	29 Nov 2021	0902_SW013_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.01	*0.20*	0.19	0.39	0.52	0.04	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	29 Nov 2021	0902_QC115_211129	Field_D	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.01	*0.19*	0.22	0.41	0.56	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	0.02	0.07	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	27 May 2022	0902_SW013_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.01	*0.17*	0.32	0.49	0.78	0.08	0.04	*<0.02*	*<0.02*	0.1	*<0.02*	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	18 Nov 2022	0902_SW013_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.14*	0.21	0.35	0.46	0.04	0.03	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW013	11 May 2023	0902_SW013_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.04	*0.38*	0.76	1.14	1.58	0.13	0.11	*<0.02*	*<0.02*	*<0.1*	0.03	0.13	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW014	03 Jul 2017	0902_SW014_030717	Normal	ES1716547	NS

Table T5 - Surface Water Historical Analytical Results

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Table T5 - Surface Water Historical Analytical Results

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Table T5 - Surface Water Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR							0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water							**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%							*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																														
SW015	03 Jul 2017	0902_SW015_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.02	*0.39*	0.49	0.88	1.06	0.06	0.06	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	27 Feb 2018	0902_SW015_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	<0.01	*0.16*	0.07	0.23	0.23	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	14 May 2020	0902_SW015_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.01	*0.26*	0.16	0.42	0.42	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	12 Nov 2020	0902_SW015_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.01	*0.09*	0.08	0.17	0.17	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	05 May 2021	0902_SW015_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.01	*0.09*	0.13	0.22	0.22	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	29 Nov 2021	0902_SW015_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	*0.08*	0.13	0.21	0.25	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	30 May 2022	0902_SW015_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	*0.24*	0.29	0.53	0.53	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	10 Nov 2022	0902_SW015_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.01	*0.35*	0.24	0.59	0.59	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	10 May 2023	0902_SW015_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	*0.16*	0.23	0.39	0.46	0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW015	09 Jun 2023	0902_SW015_230609	Normal	ES2319454	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	*0.14*	0.09	0.23	0.23	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	03 Jul 2017	0902_SW016_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	15 Jan 2018	0902_SW016_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	27 Feb 2018	0902_SW016_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	14 Nov 2019	0902_SW016_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	14 Nov 2019	0902_QC203_191114	Interlab_D	RN1253933	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.01	*0.023*	0.010	0.033	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW016	14 May 2020	0902_SW016_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	13 Nov 2020	0902_SW016_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	23 Apr 2021	0902_SW016_210423	Normal	ES2115277	NSW_0902_PFASMGMT	202104_STPLagoon	<0.01	*0.02*	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	23 Apr 2021	0902_QC200_210423	Interlab_D	267607	NSW_0902_PFASMGMT	202104_STPLagoon	<0.01	*0.03*	0.03	0.06	0.1	0.01	<0.01	<0.01	<0.02	0.02	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW016	05 May 2021	0902_SW016_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	29 Nov 2021	0902_SW016_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	30 May 2022	0902_SW016_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	*0.06*	0.17	0.23	0.28	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	10 Nov 2022	0902_SW016_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	0.02	*0.40*	0.58	0.98	1.17	0.05	0.06	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	10 Nov 2022	0902_QC112_221110	Field_D	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	0.02	*0.34*	0.49	0.83	1.00	0.05	0.05	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	10 May 2023	0902_SW016_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	*0.05*	0.01	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW016	09 Jun 2023	0902_SW016_230609	Normal	ES2319454	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.02	*0.23*	0.19	0.42	0.53	0.04	0.03	<0.02	<0.02	<0.1	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	04 Jul 2017	0902_SW018_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	<0.01	*0.05*	0.03	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	15 Jan 2018	0902_SW018_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	27 Feb 2018	0902_SW018_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	25 Nov 2019	0902_SW018_191125	Normal	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	25 Nov 2019	0902_QC111_191125	Field_D	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	15 May 2020	0902_SW018_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	13 Nov 2020	0902_SW018_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	06 May 2021	0902_SW018_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.04	*0.62*	0.54	1.16	1.54	0.05	0.07	0.03	<0.02	<0.1	0.03	0.14	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	06 May 2021	0902_QC104_210506	Field_D	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.04	*0.72*	0.62	1.34	1.75	0.07	0.06	0.04	<0.02	<0.1	0.02	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	29 Nov 2021	0902_SW018_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	*0.11*	0.04	0.15	0.17	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	31 May 2022	0902_SW018_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.02	*0.44*	0.34	0.78	0.98	0.05	0.04	<0.02	<0.02	<0.1	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	31 May 2022	0902_QC211_220531	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	0.02	*0.29*	0.19	0.48	0.64	0.03	0.02	<0.01	<0.02	0.03	<0.02	0.05	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW018	07 Nov 2022	0902_SW018_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	10 May 2023	0902_SW018_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	10 May 2023	0902_QC109_230510	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	10 May 2023	0902_QC209_230510	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	*0.02*	0.02	0.04	0.04	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW019	04 Jul 2017	0902_SW019_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.02	*0.07*	0.04	0.11	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	15 Jan 2018	0902_SW019_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	25 Nov 2019	0902_SW019_191125	Normal	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	0.02	*0.03*	0.02	0.05	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	15 May 2020	0902_SW019_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.01	*0.04*	0.03	0.07	0.11	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	13 Nov 2020	0902_SW019_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	07 May 2021	0902_SW019_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.01	*0.04*	0.03	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	29 Nov 2021	0902_SW019_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	31 May 2022	0902_SW019_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	*0.04*	0.03	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	31 May 2022	0902_QC111_220531	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	*0.03*	0.03	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	07 Nov 2022	0902_SW019_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.01	*0.05*	0.04	0.09	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	07 Nov 2022	0902_QC109_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.01	*0.04*	0.04	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW019	07 Nov 2022	0902_QC209_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.01	*0.04*	0.03	0.07	0.12	<0.01	<0.01	<0.01	<0.02	0.04	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW019	10 May 2023	0902_SW019_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	13 Nov 2017	0902_SW20_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	0.02	*0.06*	0.02	0.08	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	15 Jan 2018	0902_SW020_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.03	*0.06*	<0.02	0.06	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	25 Nov 2019	0902_SW020_191125	Normal	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	0.02	*0.05

Table T5 - Surface Water Historical Analytical Results

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Table T5 - Surface Water Historical Analytical Results

								Metals																													
								TDS (filtered)	Total Suspended Solids	Aluminium	Aluminium (filtered)	Arsenic	Arsenic (filtered)	Cadmium	Cadmium (filtered)	Calcium (filtered)	Chromium (III+VI)	Chromium (III+VI) (filtered)	Copper	Copper (filtered)	Iron	Iron (filtered)	Lead	Lead (filtered)	Magnesium (filtered)	Manganese	Manganese (filtered)	Mercury	Mercury (filtered)	Nickel	Nickel (filtered)	Potassium (filtered)	Sodium (filtered)	Zinc	Zinc (filtered)
								mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR								5	5	0.005	0.005	0.001	0.001	0.0001	0.0001	0.5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.5	0.001	0.001	0.00005	0.00005	0.001	0.001	0.5	0.5	0.001	0.001
PFAS NEMP 2020 Recreational Water																																					
PFAS NEMP 2020 Freshwater 99%																																					
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																															
SW015	03 Jul 2017	0902_SW015_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW015	27 Feb 2018	0902_SW015_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW015	14 May 2020	0902_SW015_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	9	-	0.07	-	-	-	-	22	-	-	-	-	-	0.75	-	-	18	-	0.047	-	-	-	-	22	82	-	-
SW015	12 Nov 2020	0902_SW015_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	44	-	0.01	-	-	-	-	39	-	-	-	-	-	1.46	-	-	27	-	1.68	-	-	-	-	22	97	-	-
SW015	05 May 2021	0902_SW015_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	0.01	-	-	-	-	-	-	-	-	-	-	0.08	-	-	-	-	2.15	-	-	-	-	-	-	-	-	-	-
SW015	29 Nov 2021	0902_SW015_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	0.08	-	-	-	-	28	-	-	-	-	-	0.64	-	-	21	-	0.860	-	-	-	-	11	95	-	-
SW015	30 May 2022	0902_SW015_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	*<0.01*	-	-	-	-	64	-	-	-	-	-	*<0.05*	-	-	58	-	0.793	-	-	-	-	4	284	-	-
SW015	10 Nov 2022	0902_SW015_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	0.01	-	-	-	-	-	66	-	-	-	-	0.07	-	-	-	64	0.415	-	-	-	-	-	4	342	-	-
SW015	10 May 2023	0902_SW015_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW015	09 Jun 2023	0902_SW015_230609	Normal	ES2319454	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW016	03 Jul 2017	0902_SW016_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW016	15 Jan 2018	0902_SW016_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW016	27 Feb 2018	0902_SW016_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW016	14 Nov 2019	0902_SW016_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	0.47	-	-	-	-	-	-	-	-	-	-	0.43	-	-	-	-	0.086	-	-	-	-	-	-	-	-	-
SW016	14 Nov 2019	0902_QC203_191114	Interlab_D	RN1253933	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW016	14 May 2020	0902_SW016_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	1.27	-	-	-	-	0.238	-	-	-	-	-	-	-	-	-
SW016	13 Nov 2020	0902_SW016_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	0.16	-	-	-	-	-	-	-	-	-	-	0.50	-	-	-	-	0.072	-	-	-	-	-	-	-	-	-
SW016	23 Apr 2021	0902_SW016_210423	Normal	ES2115277	NSW_0902_PFASMGMT	202104_STPLagoon	-	15	-	-	0.003	0.002	*<0.0001*	*<0.0001*	-	*<0.001*	*<0.001*	*<0.001*	*<0.001*	-	-	*<0.001*	*<0.001*	-	-	-	*<0.0001*	*<0.0001*	0.003	0.002	-	-	0.049	*<0.005*
SW016	23 Apr 2021	0902_QC200_210423	Interlab_D	267607	NSW_0902_PFASMGMT	202104_STPLagoon	-	21	-	-	0.003	0.002	*<0.0001*	*<0.0001*	-	0.001	*<0.001*	*<0.001*	*<0.001*	-	-	*<0.001*	*<0.001*	-	-	-	*<0.00005*	*<0.00005*	0.003	0.002	-	-	0.11	0.008
SW016	05 May 2021	0902_SW016_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	0.03	-	-	-	-	-	-	-	-	-	-	1.38	-	-	-	-	0.896	-	-	-	-	-	-	-	-	-	-
SW016	29 Nov 2021	0902_SW016_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	0.43	-	-	-	-	13	-	-	-	-	-	1.00	-	-	4	-	0.162	-	-	-	-	14	12	-	-
SW016	30 May 2022	0902_SW016_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	*<0.01*	-	-	-	-	42	-	-	-	-	-	0.28	-	-	21	-	1.41	-	-	-	-	16	68	-	-
SW016	10 Nov 2022	0902_SW016_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	0.01	-	-	-	-	-	47	-	-	-	-	0.16	-	-	-	26	0.413	-	-	-	-	-	12	104	-	-
SW016	10 Nov 2022	0902_QC112_221110	Field_D	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	0.01	-	-	-	-	-	48	-	-	-	-	0.16	-	-	-	27	0.414	-	-	-	-	-	12	103	-	-
SW016	10 May 2023	0902_SW016_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW016	09 Jun 2023	0902_SW016_230609	Normal	ES2319454	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	04 Jul 2017	0902_SW018_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	15 Jan 2018	0902_SW018_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	27 Feb 2018	0902_SW018_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	25 Nov 2019	0902_SW018_191125	Normal	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	25 Nov 2019	0902_QC111_191125	Field_D	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	15 May 2020	0902_SW018_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	13 Nov 2020	0902_SW018_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	06 May 2021	0902_SW018_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	06 May 2021	0902_QC104_210506	Field_D	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	29 Nov 2021	0902_SW018_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	31 May 2022	0902_SW018_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	31 May 2022	0902_QC211_220531	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	07 Nov 2022	0902_SW018_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	10 May 2023	0902_SW018_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	10 May 2023	0902_QC109_230510	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW018	10 May 2023	0902_QC209_230510	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	04 Jul 2017	0902_SW019_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	15 Jan 2018	0902_SW019_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	25 Nov 2019	0902_SW019_191125	Normal	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	15 May 2020	0902_SW019_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	13 Nov 2020	0902_SW019_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	07 May 2021	0902_SW019_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	29 Nov 2021	0902_SW019_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	31 May 2022	0902_SW019_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	31 May 2022	0902_QC111_220531	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	07 Nov 2022	0902_SW019_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	07 Nov 2022	0902_QC109_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	07 Nov 2022	0902_QC209_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW019	10 May 2023	0902_SW019_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW020	13 Nov 2017	0902_SW20_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW020	15 Jan 2018	0902_SW020_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW020	25 Nov 2019	0902_SW020_191125	Normal	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	-	60	-	0.03	-	-	-	-	31	-	-	-	-	-	*<0.05*	-	-	48	-	0.003	-	-	-	-	21	304	-	-
SW020	15 May 2020	0902_SW020_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	60	-	0.06	-	-	-	-	22	-	-	-	-	-	0.20	-	-	36	-	0.102	-	-	-	-	17	183	-	-
SW020	13 Nov 2020	0902_SW020_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	-	25	-	0.37	-	-	-	-	17	-	-	-	-	-	1.54	-	-	18	-	0.119	-	-	-	-	14	91	-	-
SW020	07 May 2021	0902_SW020_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	0.15	-	-	-	-	-	-	-	-	-	-	0.44	-	-	-	-	0.088	-	-	-	-	-	-	-	-	-	-	-	-
SW020	29 Nov 2021	0902_SW020_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	0.85	-	-	-	-	8	-	-	-	-	-	1.19	-	-	5	-	0.033	-	-	-	-	7	24	-	-
SW020	31 May 2022	0902_SW020_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	0.18	-	-	-	-	17	-	-	-	-	-	0.96	-	-	22	-	0.169	-	-	-	-	7	116	-	-
SW020	07 Nov 2022	0902_SW020_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	0.06	-	-	-	-	-	23	-	-	-	-	0.72	-	-	-	34	0.116	-	-	-	-	-	10	178	-	-
SW020	10 May 2023	0902_SW020_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW022	13 Nov 2017	0902_SW22_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table T5 - Surface Water Historical Analytical Results

						PFAS					**PFAS - Perfluoroalkyl Sulfonic Acids**				**PFAS - Perfluoroalkyl Carboxylic Acids**										**PFAS - (n:2) Fluorotelomer Sulfonic Acids**				**PFAS - Perfluoroalkyl Sulfonamides**						
						Perfluorooctanoic acid (PFOA)	**Perfluorooctane sulfonic acid (PFOS)**	**Perfluorohexane sulfonic acid (PFHxS)**	**Sum of PFHxS and PFOS**	**Sum of PFAS**	**Perfluorobutane sulfonic acid (PFBS)**	**Perfluoropentane sulfonic acid (PFPeS)**	**Perfluoroheptane sulfonic acid (PFHpS)**	**Perfluorodecane sulfonic acid (PFDS)**	**Perfluorobutanoic acid (PFBA)**	**Perfluoropentanoic acid (PFPeA)**	**Perfluorohexanoic acid (PFHxA)**	**Perfluoroheptanoic acid (PFHpA)**	**Perfluorononanoic acid (PFNA)**	**Perfluorodecanoic acid (PFDA)**	**Perfluoroundecanoic acid (PFUnDA)**	**Perfluorododecanoic acid (PFDoDA)**	**Perfluorotridecanoic acid (PFTrDA)**	**Perfluorotetradecanoic acid (PFTeDA)**	**4:2 Fluorotelomer sulfonic acid (4:2 FTS)**	**6:2 Fluorotelomer sulfonic acid (6:2 FTS)**	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	**Perfluorooctane sulfonamide (FOSA)**	**N-Methyl perfluorooctane sulfonamide (MeFOSA)**	**N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)**	**N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)**	**N-Ethyl perfluorooctane sulfonamide (EtFOSA)**	**N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)**	**N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)**
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																													
SW022	15 Jan 2018	0902_SW022_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.01	*0.04*	<0.02	0.04	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	15 Nov 2019	0902_SW022_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	0.04	*0.03*	<0.02	0.03	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	15 Nov 2019	0902_QC109_191115	Field_D	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	0.04	*0.04*	<0.02	0.04	0.14	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	15 May 2020	0902_SW022_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.02	*0.03*	<0.02	0.03	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	13 Nov 2020	0902_SW022_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	05 May 2021	0902_SW022_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	29 Nov 2021	0902_SW022_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	30 May 2022	0902_SW022_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	*0.04*	0.07	0.11	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	30 May 2022	0902_QC209_220530	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	*0.03*	0.05	0.07	0.12	<0.01	<0.01	<0.01	<0.02	0.04	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW022	03 Nov 2022	0902_SW022_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	0.01	*0.05*	0.20	0.25	0.42	0.04	0.04	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	03 Nov 2022	0902_QC104_221103	Field_D	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	0.01	*0.04*	0.19	0.23	0.39	0.04	0.04	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	09 May 2023	0902_SW022_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	*0.04*	0.07	0.11	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	09 May 2023	0902_QC105_230509	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	*0.02*	0.05	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW022	09 May 2023	0902_QC205_230509	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	*0.04*	0.08	0.11	0.14	0.01	<0.01	<0.01	<0.02	<0.02	<0.02	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW023	13 Nov 2017	0902_SW23_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	0.02	*0.38*	0.10	0.48	0.58	<0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	13 Nov 2017	0902_QC181_131117	Field_D	ES1728583	NSW_0902_PFAS	DSI	0.02	*0.38*	0.10	0.48	0.56	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	15 Jan 2018	0902_SW023_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.03	*0.49*	0.19	0.68	0.83	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	15 Jan 2018	0902_QC112_180115	Field_D	ES1802266	NSW_0902_PFAS	HHRA	0.03	*0.54*	0.20	0.74	0.88	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	11 Nov 2019	0902_SW023_191111	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	0.01	*0.23*	0.06	0.29	0.33	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	15 May 2020	0902_SW023_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.01	*0.10*	0.06	0.16	0.19	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	13 Nov 2020	0902_SW023_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.01	*0.07*	0.03	0.10	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	06 May 2021	0902_SW023_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.08	*1.66*	0.81	**2.47**	3.16	0.11	0.12	0.08	<0.02	<0.1	0.05	0.21	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	25 Nov 2021	0902_SW023_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.01	*0.30*	0.13	0.43	0.51	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	25 Nov 2021	0902_QC108_211125	Field_D	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.01	*0.29*	0.12	0.41	0.48	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	31 May 2022	0902_SW023_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.03	*0.46*	0.37	0.83	1.06	0.05	0.04	<0.02	<0.02	<0.1	0.03	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	07 Nov 2022	0902_SW023_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.02	*0.29*	0.17	0.46	0.57	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW023	07 Nov 2022	0902_QC204_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	0.01	*0.22*	0.16	0.38	0.52	0.03	0.02	<0.01	<0.02	0.05	<0.02	0.03	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW023	10 May 2023	0902_SW023_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.01	*0.17*	0.08	0.25	0.28	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	13 Nov 2017	0902_SW24_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	<0.01	*0.04*	<0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	19 Jan 2018	0902_SW024_190118	Normal	ES1802644	NSW_0902_PFAS	HHRA	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	15 Nov 2019	0902_SW024_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	14 May 2020	0902_SW024_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	12 Nov 2020	0902_SW024_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	05 May 2021	0902_SW024_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	26 Nov 2021	0902_SW024_211126	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	31 May 2022	0902_SW024_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	31 May 2022	0902_QC212_220531	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW024	03 Nov 2022	0902_SW024_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	09 May 2023	0902_SW024_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	09 May 2023	0902_QC107_230509	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW024	09 May 2023	0902_QC207_230509	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW030	17 Nov 2013	0902_QC280_131117	Interlab_D	179767	NSW_0902_PFAS	DSI	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW030	13 Nov 2017	0902_SW30_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	18 Jan 2018	0902_SW030_180118	Normal	ES1802644	NSW_0902_PFAS	HHRA	<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	27 Feb 2018	0902_SW030_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	15 Nov 2019	0902_SW030_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	15 May 2020	0902_SW030_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	13 Nov 2020	0902_SW030_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	07 May 2021	0902_SW030_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.01	*0.04*	0.02	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	29 Nov 2021	0902_SW030_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	31 May 2022	0902_SW030_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	31 May 2022	0902_QC112_220531	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	07 Nov 2022	0902_SW030_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW030	10 May 2023	0902_SW030_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	13 Nov 2017	0902_SW32_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	0.27	*3.06*	1.69	**4.75**	7.84	0.29	0.26	0.10	<0.02	<0.1	0.30	0.89	0.18	0.11	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.66	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	13 Nov 2017	0902_SW32_131117	Normal	ES1730910	NSW_0902_PFAS	DSI	0.27	*3.06*	1.69	**4.75**	7.84	0.29	0.26	0.10	<0.02	<0.1	0.30	0.89	0.18	0.11	0.03	<0.02	<0.02	<0.02	<0.05	<0.05	0.66	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	12 May 2020	0902_SW032_200512	Normal	ES2016272	NSW_0902_PFASOMP	202005_AECOM_OMP	0.12	*2.76*	1.07	**3.83**	4.97	0.18	0.14	0.05	<0.02	<0.1	0.14	0.36	0.08	0.05	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	11 Nov 2020	0902_SW032_201111	Normal	ES2039911	NSW_0902_PFASOMP	202011_AECOM_OMP	0.07	*2.41*	0.79	**3.20**	3.92	0.12	0.09	0.05	<0.02	<0.1	0.08	0.24	0.04	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW032	04 May 2021	0902_SW032_210504	Normal	ES2116724	NSW_0902_PFASOMP	202105_AECOM_OMP	0.04	*

Table T5 - Surface Water Historical Analytical Results

| | | | | | | | | Nutrients | | | | | | | | | | | | | | | | Inorganics | | | | | | | | | | | | | | | |

Table T5 - Surface Water Historical Analytical Results

								Metals																													
								TDS (filtered)	Total Suspended Solids	Aluminium	Aluminium (filtered)	Arsenic	Arsenic (filtered)	Cadmium	Cadmium (filtered)	Calcium (filtered)	Chromium (III+VI)	Chromium (III+VI) (filtered)	Copper	Copper (filtered)	Iron	Iron (filtered)	Lead	Lead (filtered)	Magnesium (filtered)	Manganese	Manganese (filtered)	Mercury	Mercury (filtered)	Nickel	Nickel (filtered)	Potassium (filtered)	Sodium (filtered)	Zinc	Zinc (filtered)
								mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR								5	5	0.005	0.005	0.001	0.001	0.0001	0.0001	0.5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.5	0.001	0.001	0.00005	0.00005	0.001	0.001	0.5	0.5	0.001	0.001
PFAS NEMP 2020 Recreational Water																																					
PFAS NEMP 2020 Freshwater 99%																																					
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																															
SW022	15 Jan 2018	0902_SW022_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW022	15 Nov 2019	0902_SW022_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	1.92	-	-	-	-	0.220	-	-	-	-	-	-	-	-	-
SW022	15 Nov 2019	0902_QC109_191115	Field_D	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW022	15 May 2020	0902_SW022_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	*<0.01*	-	-	-	-	-	-	-	-	-	-	2.15	-	-	-	-	0.770	-	-	-	-	-	-	-	-	-
SW022	13 Nov 2020	0902_SW022_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	0.78	-	-	-	-	0.066	-	-	-	-	-	-	-	-	-
SW022	05 May 2021	0902_SW022_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-	0.22	-	-	-	-	0.077	-	-	-	-	-	-	-	-	-
SW022	29 Nov 2021	0902_SW022_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	0.04	-	-	-	-	11	-	-	-	-	-	0.36	-	-	4	-	0.061	-	-	-	-	6	10	-	-
SW022	30 May 2022	0902_SW022_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	*<0.01*	-	-	-	-	41	-	-	-	-	-	0.45	-	-	28	-	0.653	-	-	-	-	12	115	-	-
SW022	30 May 2022	0902_QC209_220530	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	*<0.01*	-	-	-	-	43	-	-	-	-	-	0.53	-	-	27	-	0.73	-	-	-	-	13	120	-	-
SW022	03 Nov 2022	0902_SW022_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	0.09	-	-	-	-	-	28	-	-	-	-	0.37	-	-	-	14	0.512	-	-	-	-	-	6	89	-	-
SW022	03 Nov 2022	0902_QC104_221103	Field_D	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	0.08	-	-	-	-	-	28	-	-	-	-	0.34	-	-	-	14	0.487	-	-	-	-	-	6	86	-	-
SW022	09 May 2023	0902_SW022_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW022	09 May 2023	0902_QC105_230509	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW022	09 May 2023	0902_QC205_230509	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW023	13 Nov 2017	0902_SW23_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW023	13 Nov 2017	0902_QC181_131117	Field_D	ES1728583	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW023	15 Jan 2018	0902_SW023_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW023	15 Jan 2018	0902_QC112_180115	Field_D	ES1802266	NSW_0902_PFAS	HHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW023	11 Nov 2019	0902_SW023_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	-	13	-	0.02	-	-	-	-	35	-	-	-	-	-	0.65	-	-	37	-	0.538	-	-	-	-	30	192	-	-
SW023	15 May 2020	0902_SW023_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	22	-	0.02	-	-	-	-	24	-	-	-	-	-	0.22	-	-	32	-	0.286	-	-	-	-	12	173	-	-
SW023	13 Nov 2020	0902_SW023_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	66	-	0.28	-	-	-	-	17	-	-	-	-	-	1.24	-	-	16	-	0.263	-	-	-	-	14	76	-	-
SW023	06 May 2021	0902_SW023_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	0.03	-	-	-	-	-	-	-	-	-	-	0.51	-	-	-	-	1.08	-	-	-	-	-	-	-	-	-	-
SW023	25 Nov 2021	0902_SW023_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	0.26	-	-	-	-	15	-	-	-	-	-	1.22	-	-	15	-	0.246	-	-	-	-	8	78	-	-
SW023	25 Nov 2021	0902_QC108_211125	Field_D	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	0.22	-	-	-	-	15	-	-	-	-	-	1.18	-	-	15	-	0.246	-	-	-	-	8	77	-	-
SW023	31 May 2022	0902_SW023_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	0.08	-	-	-	-	22	-	-	-	-	-	0.56	-	-	21	-	0.568	-	-	-	-	6	103	-	-
SW023	07 Nov 2022	0902_SW023_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	0.11	-	-	-	-	-	33	-	-	-	-	1.58	-	-	-	31	1.13	-	-	-	-	-	8	159	-	-
SW023	07 Nov 2022	0902_QC204_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	0.15	-	-	-	-	31	-	-	-	-	-	1.6	-	-	32	-	1.1	-	-	-	-	7.8	160	-	-
SW023	10 May 2023	0902_SW023_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	13 Nov 2017	0902_SW24_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	19 Jan 2018	0902_SW024_190118	Normal	ES1802644	NSW_0902_PFAS	HHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	15 Nov 2019	0902_SW024_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	14 May 2020	0902_SW024_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	12 Nov 2020	0902_SW024_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	05 May 2021	0902_SW024_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	26 Nov 2021	0902_SW024_211126	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	31 May 2022	0902_SW024_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	31 May 2022	0902_QC212_220531	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	03 Nov 2022	0902_SW024_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	0.42	-	-	-	-	9	-	-	-	-	0.52	-	-	-	5	0.012	-	-	-	-	-	2	15	-	-
SW024	09 May 2023	0902_SW024_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	09 May 2023	0902_QC107_230509	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW024	09 May 2023	0902_QC207_230509	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	17 Nov 2013	0902_QC280_131117	Interlab_D	179767	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	13 Nov 2017	0902_SW30_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	18 Jan 2018	0902_SW030_180118	Normal	ES1802644	NSW_0902_PFAS	HHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	27 Feb 2018	0902_SW030_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	15 Nov 2019	0902_SW030_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	15 May 2020	0902_SW030_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	13 Nov 2020	0902_SW030_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	07 May 2021	0902_SW030_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	29 Nov 2021	0902_SW030_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	31 May 2022	0902_SW030_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	31 May 2022	0902_QC112_220531	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	07 Nov 2022	0902_SW030_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW030	10 May 2023	0902_SW030_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW032	13 Nov 2017	0902_SW32_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW032	13 Nov 2017	0902_SW32_131117	Normal	ES1730910	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW032	12 May 2020	0902_SW032_200512	Normal	ES2016272	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	*<0.01*	-	-	-	-	-	-	-	-	-	-	0.33	-	-	-	-	0.337	-	-	-	-	-	-	-	-	-
SW032	11 Nov 2020	0902_SW032_201111	Normal	ES2039911	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	0.63	-	-	-	-	0.165	-	-	-	-	-	-	-	-	-
SW032	04 May 2021	0902_SW032_210504	Normal	ES2116724	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	0.06	-	-	-	-	-	-	-	-	-	-	0.77	-	-	-	-	0.691	-	-	-	-	-	-	-	-	-	-
SW032	14 Dec 2021	0902_SW032_211214	Normal	ES2145705	NSW_0902_PFASOMP	202111_AECOM_OMP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW035	16 Nov 2017	0902_SW035_161117	Normal	ES1729043	NSW_0902_PFAS	DSI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW035	15 Jan 2018	0902_SW035_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW035	15 Nov 2019	0902_SW035_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	-	-	-	0.72	-	-	-	-	-	-	-	-	-	-	0.58	-	-	-	-	0.012	-	-	-	-	-	-	-	-	-
SW035	14 May 2020	0902_SW035_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	-	-	-	0.10	-	-	-	-	-	-	-	-	-	-	0.70	-	-	-	-	0.011	-	-	-	-	-	-	-	-	-
SW035	13 Nov 2020	0902_SW035_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	-	-	-	0.25	-	-	-	-	-	-	-	-	-	-	0.63	-	-	-	-	0.014	-	-	-	-	-	-	-	-	-
SW035	06 May 2021	0902_SW035_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	-	-	0.13	-	-	-	-	-	-	-	-	-	-	3.10	-	-	-	-	0.354	-	-	-	-	-	-	-	-	-	-

Table T5 - Surface Water Historical Analytical Results

						PFAS					**PFAS - Perfluoroalkyl Sulfonic Acids**				**PFAS - Perfluoroalkyl Carboxylic Acids**										**PFAS - (n:2) Fluorotelomer Sulfonic Acids**				**PFAS - Perfluoroalkyl Sulfonamides**						
						Perfluorooctanoic acid (PFOA)	**Perfluorooctane sulfonic acid (PFOS)**	**Perfluorohexane sulfonic acid (PFHxS)**	**Sum of PFHxS and PFOS**	**Sum of PFAS**	**Perfluorobutane sulfonic acid (PFBS)**	**Perfluoropentane sulfonic acid (PFPeS)**	**Perfluoroheptane sulfonic acid (PFHpS)**	**Perfluorodecane sulfonic acid (PFDS)**	**Perfluorobutanoic acid (PFBA)**	**Perfluoropentanoic acid (PFPeA)**	**Perfluorohexanoic acid (PFHxA)**	**Perfluoroheptanoic acid (PFHpA)**	**Perfluorononanoic acid (PFNA)**	**Perfluorodecanoic acid (PFDA)**	**Perfluoroundecanoic acid (PFUnDA)**	**Perfluorododecanoic acid (PFDoDA)**	**Perfluorotridecanoic acid (PFTrDA)**	**Perfluorotetradecanoic acid (PFTeDA)**	**4:2 Fluorotelomer sulfonic acid (4:2 FTS)**	**6:2 Fluorotelomer sulfonic acid (6:2 FTS)**	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	**Perfluorooctane sulfonamide (FOSA)**	**N-Methyl perfluorooctane sulfonamide (MeFOSA)**	**N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)**	**N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)**	**N-Ethyl perfluorooctane sulfonamide (EtFOSA)**	**N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)**	**N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)**
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																											
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																													
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																															
SW035	25 Nov 2021	0902_SW035_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.01*	*0.03*	0.02	0.05	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW035	30 May 2022	0902_SW035_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.01*	*0.03*	0.05	0.08	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW035	03 Nov 2022	0902_SW035_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.04*	0.05	0.09	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW035	09 May 2023	0902_SW035_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.01*	*0.04*	0.04	0.08	0.08	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW037	27 Nov 2017	0902_SW037_271117	Normal	ES1729970	NSW_0902_PFAS	DSI	0.01	*0.12*	0.06	0.18	0.24	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW037	15 Jan 2018	0902_SW037_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.03	*0.76*	0.07	0.83	0.94	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.02	0.06	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW037	27 Feb 2018	0902_SW037_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.02	*0.32*	0.04	0.36	0.43	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW037	11 Nov 2019	0902_SW037_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	0.01	*0.19*	0.04	0.23	0.27	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.03	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW037	14 May 2020	0902_SW037_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.02	*0.31*	0.16	0.47	0.67	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	0.04	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW037	13 Nov 2020	0902_SW037_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.01	*0.15*	0.07	0.22	0.38	0.10	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW037	05 May 2021	0902_SW037_210505	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.01*	*0.19*	0.07	0.26	0.28	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW037	29 Nov 2021	0902_SW037_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.01	*0.42*	0.13	0.55	0.67	0.04	*<0.02*	*<0.02*	*<0.02*	*<0.1*	0.02	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW037	27 May 2022	0902_SW037_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.02	*0.56*	0.27	0.83	1.02	0.03	0.02	*<0.02*	*<0.02*	*<0.1*	0.03	0.09	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW037	08 Nov 2022	0902_SW037_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.01*	*0.18*	0.08	0.26	0.28	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*
SW037	08 May 2023	0902_SW037_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.03	*0.74*	0.17	0.91	1.01	*<0.02*	0.02	*<0.02*	*<0.02*	*<0.1*	*<0.02*	0.05	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.02*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.05*	*<0.02*	*<0.05*	*<0.02*	*<0.05*	*<0.05*	*<0.02*	*<0.05*

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Table T5 - Surface Water Historical Analytical Results

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Table T5 - Surface Water Historical Analytical Results

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Table T6 - Sediment Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids									PFAS - (n:2) Fluorotelomer Sulfonic Acids			
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																							
SD001	03 Jul 2017	0902_SD001_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0348	2.05	0.0175	2.07	10	0.0003	0.0005	0.0052	0.0329	0.002	0.0032	0.0139	0.0071	0.228	1.12	1.03	0.15	0.0121	0.0031	<0.0005	0.508	4.73	0.039
SD001	03 Jul 2017	0902_QC108_030717	Field_D	ES1716547	NSW_0902_PFAS	Early Works Program	0.634	38.9	0.671	39.6	151	<0.0100	0.0135	0.183	0.318	<0.010	0.0135	0.508	0.105	3.25	22.9	8.38	4.46	0.631	0.249	<0.0100	11	57.7	0.497
SD001	27 Feb 2018	0902_SD001_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.252	5.01	0.0253	5.04	18.6	0.0006	0.0006	0.0221	0.0411	0.002	0.0056	0.0319	0.0413	1.16	2.76	2.06	0.825	0.105	0.0293	<0.0005	0.532	5.66	0.0065
SD001	04 Nov 2019	0902_SD001_191104	Normal	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	0.0565	14.6	0.016	14.6	66.4	0.0051	<0.0050	0.0244	0.153	<0.005	0.0067	0.0219	0.0152	0.729	13.9	12.6	3.42	0.25	0.0506	<0.0050	0.124	19.9	0.351
SD001	04 Nov 2019	0902_QC101_191104	Field_D	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	0.0435	7.84	0.0124	7.85	42.2	<0.0050	<0.0050	0.0171	0.106	<0.005	<0.0050	0.0171	0.0109	0.464	8.87	8.01	2.59	0.177	0.0373	<0.0050	0.0995	13.5	0.284
SD001	15 May 2020	0902_SD001_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.0938	6.56	0.0255	6.58	30.9	0.0015	0.0017	0.0175	0.25	0.002	0.0097	0.0289	0.0297	0.607	5.32	5.83	3.93	0.592	0.424	<0.0005	0.119	6.83	0.101
SD001	13 Nov 2020	0902_SD001_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0622	5.84	0.0149	5.85	21.5	0.0008	0.0008	0.0153	0.0903	0.003	0.0056	0.0133	0.0136	0.732	3.14	2.72	1.9	0.292	0.167	<0.0005	0.0683	6.32	0.0541
SD001	13 Nov 2020	0902_QC107_201113	Field_D	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.031	2.7	0.0081	2.71	10.1	0.0005	0.0005	0.0074	0.0393	0.002	0.0031	0.0071	0.0085	0.363	1.46	1.34	0.876	0.14	0.0659	<0.0005	0.0358	2.97	0.0354
SD001	07 May 2021	0902_SD001_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0124	1.98	0.0135	1.99	7.45	0.0012	0.0006	0.0086	0.0576	<0.002	0.0035	0.0068	0.0051	0.112	1.1	1.22	0.77	0.159	0.0488	<0.0005	0.0158	1.81	0.0914
SD001	07 May 2021	0902_QC107_210507	Field_D	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0493	2.78	0.0498	2.83	23.4	0.0031	0.0031	0.0422	0.318	<0.005	0.0067	0.0146	0.0146	0.494	3.81	5.53	3.95	0.417	0.117	<0.0010	0.0458	5.22	0.323
SD001	26 Nov 2021	0902_SD001_211126	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.104	14.3	0.0885	14.4	51.1	0.0054	0.0075	0.0282	0.322	<0.001	0.0105	0.0366	0.0339	0.708	6.81	10.7	8.99	1.52	1.01	<0.0005	0.132	5.35	0.718
SD001	26 Nov 2021	0902_QC209_211126	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	0.11	11	0.093	11	52	0.0052	0.0068	0.028	0.28	0.0042	0.011	0.029	0.037	0.66	5.6	8.8	11	2.5	1.2	<0.0001	0.12	8.5	1.1
SD001	24 May 2022	0902_SD001_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.0315	4.24	0.061	4.3	13.9	0.0037	0.005	0.0096	0.218	0.002	0.0061	0.012	0.0098	0.0817	0.49	2.94	3.72	0.477	0.207	<0.0005	0.022	1.03	0.244
SD001	24 May 2022	0902_QC101_220524	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.0634	6.59	0.098	6.69	19.3	0.0076	0.009	0.0236	0.349	0.004	0.0105	0.0263	0.022	0.127	0.891	3.5	4.41	0.622	0.389	<0.0005	0.0539	1.83	0.0688
SD001	07 Nov 2022	0902_SD001_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.0926	8.2	0.218	8.42	28.9	0.0051	0.0112	0.0367	0.318	<0.005	0.0054	0.0222	0.0291	0.423	2.21	5.53	5.36	1.23	1.02	<0.0010	0.0925	3.52	0.493
SD001	07 Nov 2022	0902_QC106_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.101	8.53	0.204	8.73	29.7	0.0053	0.0109	0.0347	0.32	<0.005	0.0055	0.0224	0.0275	0.386	2.27	5.58	5.46	1.13	1.03	<0.0010	0.0926	3.82	0.511
SD001	07 Nov 2022	0902_QC206_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	0.051	6.5	0.069	6.6	26	0.0038	0.0053	0.019	0.32	0.002	0.0051	0.014	0.014	0.33	2.6	4.6	5.1	1.2	0.98	<0.0005	0.046	3.6	0.35
SD001	08 May 2023	0902_SD001_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.0037	0.599	0.0032	0.602	1.47	0.0004	0.0003	0.0025	0.0214	<0.001	0.0016	0.002	0.0015	0.023	0.137	0.199	0.193	0.0419	0.0285	<0.0005	0.0039	0.174	0.0254
SD001	08 May 2023	0902_QC101_230508	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.103	13.9	0.0995	14	42.3	0.0043	0.0068	0.0517	0.477	<0.012	0.0122	0.0257	0.0324	0.597	3.85	8.25	6.9	1.5	0.679	<0.0025	0.114	4.99	0.562
SD001	08 May 2023	0902_QC201_230508	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.017	1.7	0.017	1.8	5.6	0.0011	0.0013	0.0057	0.071	0.002	0.0036	0.0058	0.0054	0.063	0.46	0.85	1.1	0.25	0.19	<0.0001	0.027	0.71	0.056
SD002	04 Jul 2017	0902_SD002_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0298	1.68	0.237	1.92	2.21	0.0023	0.0032	0.0157	0.0177	0.002	0.0059	0.0097	0.0076	0.0133	0.0026	0.006	0.0114	0.0017	0.0032	<0.0005	0.0742	0.0424	0.0023
SD002	15 Jan 2018	0902_SD002_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.0039	0.461	0.016	0.477	0.573	0.0014	0.0018	0.0034	0.0051	<0.001	0.0016	0.003	0.0019	0.005	0.0063	0.0059	0.0057	0.0018	0.0037	<0.0005	0.0179	0.0112	0.0008
SD002	04 Nov 2019	0902_SD002_191104	Normal	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	0.0069	0.404	0.0394	0.443	0.604	0.0028	0.0029	0.0036	0.0179	0.003	0.0088	0.0062	0.0028	0.0072	0.015	0.0134	0.0143	0.0054	0.0049	<0.0005	0.0031	0.0051	0.0108
SD002	14 May 2020	0902_SD002_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.0059	0.311	0.0446	0.356	0.469	0.0047	0.0045	0.0047	0.0034	0.004	0.0054	0.0106	0.0026	0.0054	0.0117	0.0115	0.0126	0.0024	<0.0025	<0.0010	<0.0010	0.0048	0.002
SD002	13 Nov 2020	0902_SD002_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0046	0.345	0.0286	0.374	0.462	0.0031	0.0024	0.0036	0.0031	<0.001	0.0022	0.008	<0.0002	0.0042	0.0189	0.0105	0.0075	0.002	<0.0005	<0.0005	0.0018	0.003	<0.0005
SD002	13 Nov 2020	0902_QC207_201113	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0045	0.51	0.035	0.545	-	0.0027	0.0026	0.0037	0.0048	<0.002	0.0041	0.0058	0.0021	0.0045	0.022	0.016	0.017	0.0043	0.004	<0.001	0.0016	0.0042	<0.002
SD002	05 May 2021	0902_SD002_210505	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0107	0.599	0.0599	0.659	0.853	0.0036	0.0051	0.0083	0.0122	<0.005	0.0059	0.0074	0.0033	0.0107	0.0198	0.0282	0.0344	0.0092	0.0056	<0.0010	0.0021	0.0048	0.0043
SD002	29 Nov 2021	0902_SD002_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0028	0.593	0.0379	0.631	0.743	0.0028	0.0028	0.006	0.0121	<0.001	0.0016	0.0052	0.0009	0.0034	0.0117	0.0116	0.0147	0.0048	0.0045	<0.0005	0.0007	0.0026	0.0006
SD002	27 May 2022	0902_SD002_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.0115	1.49	0.157	1.65	1.87	0.0124	0.0153	0.0261	0.0138	0.003	0.0054	0.0214	0.0044	0.0027	0.0067	0.0152	0.0263	0.0084	0.0072	<0.0005	0.0011	0.0098	0.0022
SD002	27 May 2022	0902_QC207_220527	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	0.01	1.4	0.11	1.5	1.8	0.011	0.013	0.025	0.019	0.0028	0.0046	0.018	0.0036	0.0024	0.0053	0.012	0.031	0.014	0.009	<0.0001	0.0013	0.0058	0.0044
SD002	08 Nov 2022	0902_SD002_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.0053	1.09	0.0864	1.18	1.3	0.0048	0.0055	0.0151	0.0136	<0.005	0.0022	0.0072	0.0016	0.0014	0.003	0.005	0.014	0.0058	0.0059	<0.0010	<0.0010	0.0019	<0.0010
SD002	08 May 2023	0902_SD002_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.0006	0.186	0.0046	0.191	0.242	0.0005	0.0005	0.0018	0.0059	<0.001	0.0004	0.0006	<0.0002	0.0004	0.0015	0.0022	0.0055	0.0022	0.0019	<0.0005	<0.0005	0.0018	0.0011
SD003	04 Jul 2017	0902_SD003_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0082	0.936	0.0947	1.03	1.16	0.0022	0.0027	0.0054	0.0212	0.001	0.0029	0.0077	0.0031	0.0073	0.0148	0.011	0.0039	0.0011	0.0006	<0.0005	0.0084	0.0125	0.0005
SD003	15 Jan 2018	0902_SD003_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.026	1.98	0.0968	2.08	3.3	0.006	0.0058	0.0187	0.0214	<0.001	0.0192	0.0192	0.012	0.0299	0.0388	0.0193	0.0245	0.0099	0.0349	<0.0005	0.779	0.0778	0.0067
SD003	15 Jan 2018	0902_QC211_180115	Interlab_D	183570	NSW_0902_PFAS	HHRA	0.022	3.7	0.086	3.786	-	0.0052	0.0063	0.039	0.083	0.0036	0.01	0.018	0.0095	0.03	0.042	0.032	0.058	0.013	<0.05	<0.001	0.055	0.052	0.01
SD003	27 Feb 2018	0902_SD003_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.0069	0.289	0.02	0.309	0.376	0.0016	0.0014	0.0023	0.0068	<0.001	0.0027	0.0055	0.0028	0.006	0.0087	0.0047	0.005	0.0004	<0.0005	<0.0005	0.0043	0.0027	<0.0005
SD003	27 Feb 2018	0902_QC121_270218	Field_D	ES1806139	NSW_0902_PFAS	DSI	0.0071	0.297	0.0215	0.318	0.391	0.0019	0.0016	0.003	0.0081	<0.001	0.0026	0.0058	0.0028	0.0048	0.0088	0.005	0.0058	0.0006	<0.0005	<0.0005	0.0037	0.0045	<0.0005
SD003	11 Nov 2019	0902_SD003_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	0.0114	2.66	0.149	2.81	3.12	0.0132	0.0136	0.0158	0.0359	0.003	0.0047	0.0245	0.0032	0.0217	0.0411	0.0136	0.0209	0.0043	0.0039	<0.0005	0.0066	0.037	0.0063
SD003	14 May 2020	0902_SD003_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.0113	1.46	0.0683	1.53	2.03	0.0061	0.0057	0.0117	0.055	0.009	0.0032	0.0133	0.0036	0.0113	0.0441	0.0514	0.0784	0.0194	0.0113	<0.0025	0.0194	0.0639	0.015
SD003	13 Nov 2020	0902_SD003_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0047	0.497	0.035	0.532	0.629	0.0022	0.0025	0.0044	0.0138	0.001	0.002	0.0055	0.0018	0.0038	0.0121	0.0115	0.0084	0.0021	0.0005	<0.0005	0.0008	0.0019	<0.0005
SD003	05 May 2021	0902_SD003_210505	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0105	0.63	0.0771	0.707	0.888	0.0041	0.0066	0.0092	0.0288	0.003	0.0077	0.0109	0.0039	0.0096	0.0198	0.0211	0.023	0.0049	0.0025	<0.0005	0.001	0.001	<0.0005
SD003	29 Nov 2021	0902_SD003_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0094	1.29	0.106	1.4	1.66	0.0067	0.0073	0.0092	0.0534	0.003	0.0076	0.0136	0.0039	0.0076	0.0247	0.0344	0.049	0.011	<0.0005	<0.0005	0.0013	0.003	0.0009
SD003	29 Nov 2021	0902_QC210_211129	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0054	1.1	0.07	1.1	1.4	0.0038	0.0046	0.011	0.015	0.002	0.0031	0.0073	0.0022	0.0068	0.025	0.029	0.051	0.03	0.005	<0.0001	0.0014	0.01	0.002
SD003	27 May 2022	0902_SD003_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.0055	1.18	0.0818	1.26	1.36	0.0064	0.0073	0.0149	0.0092	0.001	0.0022	0.0103	0.0022	0.0013	0.0034	0.0068	0.012	0.0035	0.0025	<0.0005	0.0007	0.0046	0.0013
SD003	08 Nov 2022	0902_SD003_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.005	0.783	0.068	0.851	0.931	0.0046	0.0053	0.0097	0.007	<0.005	0.0019	0.0081	0.0018	<0.0010	0.0023	0.0062	0.0103	0.0035	0.0028	<0.0010	<0.0010	0.0026	<0.0010
SD003	08 May 2023	0902_SD003_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.0016	0.628	0.0204	0.648	0.719	0.0019	0.0022	0.0067	0.0069	0.001	0.0011	0.0027	<0.0002	0.0012	0.0033	0.0062	0.0171	0.0028	0.0018	<0.0005	0.0007	0.0048	0.0014
SD005	04 Jul 2017	0902_SD005_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	<0.0002	0.0068	0.0004	0.0072	0.0072	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	08 Nov 2019	0902_SD005_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0044	<0.0002	0.0044	0.0044	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	14 May 2020	0902_SD005_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	0.0112	0.0007	0.0119	0.0119	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	14 May 2020	0902_QC105_200514	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	0.0148	0.0007	0.0155	0.0155	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	12 Nov 2020	0902_SD005_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	0.0083	0.0005	0.0088	0.0088	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	12 Nov 2020	0902_QC105_201112	Field_D	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	0.0093	0.0008	0.0101	0.0101	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	06 May 2021	0902_SD005_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.0002	0.0116	0.0012	0.0128	0.013	0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	25 Nov 2021	0902_SD005_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.0167	0.0012	0.0179	0.0183	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	26 May 2022	0902_SD005_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0073	0.0002	0.0075	0.0075	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	11 Nov 2022	0902_SD005_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.0108	0.0003	0.0111	0.0111	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD005	11 May 2023	0902_SD005_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.004	0.0002	0.0042	0.0042	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD007	04 Jul 2017	0902_SD007_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0003	0.0146	0.0015	0.0161	0.0187	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	0.0003	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.0017	<0.0005	<0.0005
SD007	15 Jan 2018	0902_SD007_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	<0.0002	0.0103	0.0009	0.0112	0.0123	<0.0002	<0.0002	0.0009	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD007	08 Nov 2019	0902_SD007_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0044	0.0007	0.0051	0.0051	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD007	14 May 2020	0902_SD007_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	0.0033	0.0002	0.0035	0.0035	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD007	14 May 2020	0902_QC207_200514	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.001	0.0057	<0.001	0.0057	-	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002
SD007	12 Nov 2020	0902_SD007_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	0.0035	0.0005	0.004	0.0042	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD007	12 Nov 2020	0902_QC205_201112	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.001	0.0041	<0.001	0.0041	-	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002
SD007	06 May 2021	0902_SD007_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.0002	0.0012	0.0002	0.0014	0.0019	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD007	29 Nov 2021	0902_SD007_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.0121	0.0008	0.0129	0.0129	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD007	29 Nov 2021	0902_QC111_211129	Field_D	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.01	0.0012	0.0112	0.0115	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD007	26 May 2022	0902_SD007_220526	Normal

Table T6 - Sediment Historical Analytical Results

							PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR							0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**							
SD001	03 Jul 2017	0902_SD001_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0104	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD001	03 Jul 2017	0902_QC108_030717	Field_D	ES1716547	NSW_0902_PFAS	Early Works Program	0.527	*<0.0250*	*<0.0100*	*<0.0250*	*<0.0250*	*<0.0100*	*<0.0250*
SD001	27 Feb 2018	0902_SD001_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.0557	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD001	04 Nov 2019	0902_SD001_191104	Normal	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	0.185	*<0.0125*	*<0.0050*	*<0.0125*	*<0.0125*	*<0.0050*	*<0.0125*
SD001	04 Nov 2019	0902_QC101_191104	Field_D	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	0.142	*<0.0125*	*<0.0050*	*<0.0125*	*<0.0125*	*<0.0050*	*<0.0125*
SD001	15 May 2020	0902_SD001_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.155	*<0.0012*	*<0.0005*	*<0.0012*	*<0.0012*	*<0.0005*	0.0067
SD001	13 Nov 2020	0902_SD001_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0694	*<0.0005*	0.0009	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD001	13 Nov 2020	0902_QC107_201113	Field_D	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0408	*<0.0005*	0.0003	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD001	07 May 2021	0902_SD001_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0251	*<0.0012*	*<0.0005*	*<0.0012*	*<0.0012*	*<0.0005*	0.0127
SD001	07 May 2021	0902_QC107_210507	Field_D	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	0.121	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	0.0899
SD001	26 Nov 2021	0902_SD001_211126	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.183	*<0.0005*	0.0024	*<0.0005*	*<0.0005*	0.002	*<0.0005*
SD001	26 Nov 2021	0902_QC209_211126	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	0.37	0.002	0.0027	*<0.001*	*<0.001*	0.0024	*<0.005*
SD001	24 May 2022	0902_SD001_220524	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.0693	*<0.0005*	0.0014	*<0.0005*	*<0.0005*	*<0.0002*	0.0524
SD001	24 May 2022	0902_QC101_220524	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.0903	*<0.0005*	0.0018	*<0.0005*	*<0.0005*	*<0.0002*	0.0785
SD001	07 Nov 2022	0902_SD001_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.128	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*
SD001	07 Nov 2022	0902_QC106_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.128	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*
SD001	07 Nov 2022	0902_QC206_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	0.093	*<0.005*	*<0.001*	*<0.005*	*<0.005*	*<0.001*	*<0.02*
SD001	08 May 2023	0902_SD001_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.0065	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD001	08 May 2023	0902_QC101_230508	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.149	*<0.0062*	*<0.0025*	*<0.0062*	*<0.0062*	*<0.0025*	*<0.0062*
SD001	08 May 2023	0902_QC201_230508	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.017	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*
SD002	04 Jul 2017	0902_SD002_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0378	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0002	*<0.0005*
SD002	15 Jan 2018	0902_SD002_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.0153	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD002	04 Nov 2019	0902_SD002_191104	Normal	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	0.0262	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD002	14 May 2020	0902_SD002_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.0173	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*
SD002	13 Nov 2020	0902_SD002_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0131	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD002	13 Nov 2020	0902_QC207_201113	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP	0.015	*<0.002*	*<0.002*	*<0.005*	*<0.002*	*<0.002*	*<0.005*
SD002	05 May 2021	0902_SD002_210505	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0186	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*
SD002	29 Nov 2021	0902_SD002_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0231	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0003	*<0.0005*
SD002	27 May 2022	0902_SD002_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.0349	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD002	27 May 2022	0902_QC207_220527	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	0.044	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*
SD002	08 Nov 2022	0902_SD002_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.0318	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*
SD002	08 May 2023	0902_SD002_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.024	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	04 Jul 2017	0902_SD003_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0174	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	15 Jan 2018	0902_SD003_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.073	*<0.0006*	0.0006	*<0.0006*	*<0.0006*	0.0009	*<0.0006*
SD003	15 Jan 2018	0902_QC211_180115	Interlab_D	183570	NSW_0902_PFAS	HHRA	0.034	*<0.01*	*<0.002*	*<0.01*	*<0.01*	*<0.002*	*<0.05*
SD003	27 Feb 2018	0902_SD003_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.0055	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	27 Feb 2018	0902_QC121_270218	Field_D	ES1806139	NSW_0902_PFAS	DSI	0.0067	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	11 Nov 2019	0902_SD003_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	0.0337	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0007	*<0.0005*
SD003	14 May 2020	0902_SD003_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.0647	*<0.0062*	*<0.0025*	*<0.0062*	*<0.0062*	*<0.0025*	*<0.0062*
SD003	13 Nov 2020	0902_SD003_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0177	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0002	*<0.0005*
SD003	05 May 2021	0902_SD003_210505	Normal	ES2116725	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0128	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	29 Nov 2021	0902_SD003_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0232	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0003	*<0.0005*
SD003	29 Nov 2021	0902_QC210_211129	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	0.024	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	0.0002	*<0.005*
SD003	27 May 2022	0902_SD003_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.0066	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD003	08 Nov 2022	0902_SD003_221108	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	0.0085	*<0.0025*	*<0.0010*	*<0.0025*	*<0.0025*	*<0.0010*	*<0.0025*
SD003	08 May 2023	0902_SD003_230508	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.0071	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	04 Jul 2017	0902_SD005_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	08 Nov 2019	0902_SD005_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	14 May 2020	0902_SD005_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	14 May 2020	0902_QC105_200514	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	12 Nov 2020	0902_SD005_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	12 Nov 2020	0902_QC105_201112	Field_D	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	06 May 2021	0902_SD005_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	25 Nov 2021	0902_SD005_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	26 May 2022	0902_SD005_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	11 Nov 2022	0902_SD005_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD005	11 May 2023	0902_SD005_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD007	04 Jul 2017	0902_SD007_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD007	15 Jan 2018	0902_SD007_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD007	08 Nov 2019	0902_SD007_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD007	14 May 2020	0902_SD007_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD007	14 May 2020	0902_QC207_200514	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.001*	*<0.002*	*<0.002*	*<0.005*	*<0.002*	*<0.002*	*<0.005*
SD007	12 Nov 2020	0902_SD007_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD007	12 Nov 2020	0902_QC205_201112	Interlab_D	RN1294813	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.001*	*<0.002*	*<0.002*	*<0.005*	*<0.002*	*<0.002*	*<0.005*
SD007	06 May 2021	0902_SD007_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD007	29 Nov 2021	0902_SD007_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD007	29 Nov 2021	0902_QC111_211129	Field_D	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD007	26 May 2022	0902_SD007_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*

Table T6 - Sediment Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids			
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																							
SD007	11 Nov 2022	0902_SD007_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.0045	0.0004	0.0049	0.0049	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD007	11 May 2023	0902_SD007_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.001	<0.0002	0.001	0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD008	03 Jul 2017	0902_SD008_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	<0.0002	0.0385	0.0019	0.0404	0.043	<0.0002	<0.0002	0.0003	0.0008	<0.001	<0.0002	<0.0002	<0.0002	0.0002	0.0003	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.0008	<0.0005	<0.0005
SD008	27 Feb 2018	0902_SD008_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.0004	0.0367	0.0043	0.041	0.0452	0.0003	0.0003	0.0003	0.0008	<0.001	<0.0002	0.0006	0.0005	0.0002	0.0002	0.0004	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD008	08 Nov 2019	0902_SD008_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0068	0.0006	0.0074	0.0086	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD008	14 May 2020	0902_SD008_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	0.0109	0.0018	0.0127	0.0133	0.0002	0.0004	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD008	14 May 2020	0902_QC108_200514	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	0.0161	0.0032	0.0193	0.0201	0.0003	0.0003	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD008	12 Nov 2020	0902_SD008_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0002	0.0172	0.0019	0.0191	0.0204	0.0006	<0.0002	<0.0002	<0.0002	<0.001	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD008	06 May 2021	0902_SD008_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.0002	0.0043	0.002	0.0063	0.0069	0.0004	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD008	29 Nov 2021	0902_SD008_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.0056	0.0011	0.0067	0.0086	<0.0002	<0.0002	0.001	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0009	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD008	29 Nov 2021	0902_QC114_211129	Field_D	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.0036	0.001	0.0046	0.0046	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD008	26 May 2022	0902_SD008_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0072	0.001	0.0082	0.0084	<0.0002	<0.0002	<0.0002	0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD008	11 Nov 2022	0902_SD008_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.0209	0.0024	0.0233	0.0236	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD008	11 May 2023	0902_SD008_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.0406	0.0007	0.0413	0.0465	<0.0002	<0.0002	0.0002	0.0032	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	0.0008	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD009	03 Jul 2017	0902_SD009_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0016	0.183	0.0067	0.19	0.201	<0.0002	<0.0002	0.001	0.0029	<0.001	0.0005	0.0006	0.0004	0.0008	0.0007	0.0007	0.0006	0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD009	15 Jan 2018	0902_SD009_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.0008	0.263	0.0086	0.272	0.287	<0.0002	<0.0002	0.0011	0.0064	<0.001	<0.0002	0.0003	0.0002	0.0003	0.0006	0.0004	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD009	05 Feb 2018	0902_SD09_050218	Normal	ES1804510	NSW_0902_PFAS	ERA	0.0004	0.191	0.0024	0.193	0.206	<0.0002	<0.0002	0.0007	0.0094	<0.001	<0.0002	<0.0002	<0.0002	0.0002	0.0004	0.0005	0.0004	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD009	27 Feb 2018	0902_SD009_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.0016	0.0917	0.0071	0.0988	0.113	0.0003	0.0004	0.0008	0.0027	0.002	<0.0002	0.0006	0.0004	0.0003	0.0006	0.0007	0.0007	<0.0002	<0.0005	<0.0005	0.0014	0.0007	<0.0005
SD009	04 Nov 2019	0902_SD009_191104	Normal	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0178	0.0009	0.0187	0.0223	<0.0002	<0.0002	<0.0002	0.0008	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD009	14 May 2020	0902_SD009_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.0024	0.147	0.0227	0.17	0.227	0.0016	0.0041	0.0017	0.0041	0.002	0.0044	0.0032	0.002	0.0008	0.0006	0.0017	0.0106	0.0054	0.0043	<0.0005	0.0018	0.0016	0.0009
SD009	12 Nov 2020	0902_SD009_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0007	0.0822	0.0086	0.0908	0.116	0.0007	0.0007	0.0006	0.0016	0.001	0.0011	0.0019	0.0004	<0.0002	0.0003	0.0008	0.0053	0.003	0.0028	<0.0005	0.001	0.0012	0.0006
SD009	06 May 2021	0902_SD009_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0005	0.0712	0.0037	0.0749	0.0878	<0.0002	<0.0002	0.0007	0.0066	<0.001	0.0004	0.0004	0.0003	0.0005	0.0009	0.0012	0.001	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD009	29 Nov 2021	0902_SD009_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0003	0.0493	0.0032	0.0525	0.0561	0.0003	0.0003	0.0003	0.001	<0.001	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD009	29 Nov 2021	0902_QC215_211129	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0003	0.047	0.0031	0.05	0.057	0.0002	0.0002	0.0005	0.0006	<0.0002	0.0004	0.0004	0.0002	0.0002	<0.0005	0.0006	0.001	0.001	<0.005	<0.0001	0.0001	0.0004	0.0003
SD009	26 May 2022	0902_SD009_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.0005	0.0541	0.0079	0.062	0.0665	<0.0002	0.0003	0.0007	0.001	<0.001	<0.0002	0.0004	<0.0002	0.0005	0.0003	0.0003	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD009	18 Nov 2022	0902_SD009_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.0161	0.0018	0.0179	0.0194	<0.0002	<0.0002	<0.0002	0.0008	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD009	11 May 2023	0902_SD009_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.0002	0.0182	0.0013	0.0195	0.0227	<0.0002	<0.0002	0.0004	0.0008	<0.001	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	0.0007	0.0004	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD011	04 Jul 2017	0902_SD011_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0066	0.722	0.0479	0.77	0.911	0.0003	0.0005	0.0068	0.006	<0.001	<0.0002	0.0057	0.0014	0.0042	0.0041	0.0085	0.0152	0.0078	0.0063	<0.0005	0.004	0.0463	0.0065
SD011	04 Jul 2017	0902_QC206_040717	Interlab_D	170811	NSW_0902_PFAS	Early Works Program	0.0026	0.38	0.017	0.397	-	0.0009	0.0013	0.0022	0.0024	0.001	<0.0002	0.0024	<0.0001	0.0011	0.002	0.004	0.011	0.0084	0.009	<0.0001	0.0005	0.0078	0.0024
SD011	15 Jan 2018	0902_SD011_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.0014	0.178	0.0085	0.186	0.226	<0.0002	0.0006	0.0021	0.0022	<0.001	<0.0002	0.0012	0.0006	0.0005	0.001	0.0016	0.0028	0.0029	0.0076	<0.0005	0.0028	0.0047	0.0007
SD011	27 Feb 2018	0902_SD011_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.0003	0.009	0.0012	0.0102	0.0146	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0007	0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0005	<0.0005	0.003	<0.0005	<0.0005
SD011	27 Feb 2018	0902_QC221_270218	Interlab_D	186339	NSW_0902_PFAS	DSI	0.0005	0.035	0.006	0.041	-	0.0005	0.0005	0.0006	0.0005	0.0006	0.0007	0.0011	0.0002	0.0003	<0.0005	<0.0005	0.0007	<0.0005	<0.005	<0.0001	0.0002	0.0003	0.0001
SD011	08 Nov 2019	0902_SD011_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0027	<0.0002	0.0027	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD011	15 May 2020	0902_SD011_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0005	0.0217	0.0027	0.0244	0.0271	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0009	0.0018	<0.0005	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005
SD011	12 Nov 2020	0902_SD011_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0005	0.0664	0.0045	0.0709	0.0815	<0.0002	0.0002	0.0004	0.0006	<0.001	0.0006	0.0011	0.0003	0.0003	0.0006	0.0011	0.0028	0.0007	0.0006	<0.0005	<0.0005	<0.0005	<0.0005
SD011	07 May 2021	0902_SD011_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.0002	0.0311	0.0021	0.0332	0.0352	<0.0002	<0.0002	<0.0002	0.0012	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0003	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD011	29 Nov 2021	0902_SD011_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0006	0.117	0.005	0.122	0.138	0.0003	0.0003	0.0006	0.0027	<0.001	0.0004	0.0013	0.0004	0.0008	0.0014	0.0019	0.0025	0.0008	0.0008	<0.0005	<0.0005	<0.0005	<0.0005
SD011	27 May 2022	0902_SD011_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.0004	0.0407	0.0059	0.0466	0.0527	0.0008	0.0008	0.0005	0.0007	<0.001	0.0003	0.0011	0.0002	<0.0002	<0.0002	0.0003	0.0006	0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD011	11 Nov 2022	0902_SD011_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	0.0004	0.0871	0.0075	0.0946	0.105	0.0003	0.0004	0.0006	0.0021	<0.001	<0.0002	0.0008	<0.0002	<0.0002	<0.0002	0.0006	0.0028	0.001	0.0008	<0.0005	<0.0005	<0.0005	<0.0005
SD011	11 May 2023	0902_SD011_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.036	0.0019	0.0379	0.0392	<0.0002	<0.0002	0.0003	0.0007	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	03 Jul 2017	0902_SD013_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0006	0.0416	0.0064	0.048	0.0506	<0.0002	0.0002	0.0003	0.0005	<0.001	<0.0002	0.0005	0.0003	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	08 Nov 2019	0902_SD013_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0135	0.0018	0.0153	0.0184	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0004	0.0008	0.0014	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	14 May 2020	0902_SD013_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.0002	0.0382	0.0029	0.0411	0.0428	0.0002	0.0004	0.0002	0.0004	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	14 May 2020	0902_QC209_200514	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.001	0.054	0.0035	0.0575	-	<0.001	<0.001	<0.001	<0.001	0.029	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002
SD013	12 Nov 2020	0902_SD013_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	0.0148	0.0025	0.0173	0.0173	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	06 May 2021	0902_SD013_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0006	0.0276	0.0022	0.0298	0.0322	<0.0002	<0.0002	0.0002	0.0003	<0.001	0.0003	0.0006	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	29 Nov 2021	0902_SD013_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0008	0.178	0.0358	0.214	0.225	0.0006	0.0011	0.0024	0.0017	<0.001	0.0019	0.0013	0.0003	0.0003	0.0004	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	27 May 2022	0902_SD013_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0463	0.003	0.0493	0.0507	<0.0002	<0.0002	0.0007	0.0005	<0.001	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	18 Nov 2022	0902_SD013_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.014	0.0027	0.0167	0.0169	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD013	11 May 2023	0902_SD013_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.004	0.0012	0.0052	0.0052	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	03 Jul 2017	0902_SD014_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0008	0.158	0.0151	0.173	0.182	0.0004	0.0007	0.0019	0.0008	<0.001	<0.0002	0.0006	<0.0002	<0.0002	0.0005	0.0011	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	08 Nov 2019	0902_SD014_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0004	<0.0002	0.0004	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	08 Nov 2019	0902_QC103_191108	Field_D	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0006	0.0003	0.0009	0.0009	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	14 May 2020	0902_SD014_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	0.0247	0.0019	0.0266	0.0307	<0.0002	<0.0002	<0.0002	<0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	0.0014	0.0011	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	12 Nov 2020	0902_SD014_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	0.0136	0.0015	0.0151	0.0198	0.0005	<0.0002	<0.0002	<0.0002	0.002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0006	0.0011	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	06 May 2021	0902_SD014_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0032	0.0625	0.0523	0.115	0.163	0.0044	0.0054	0.0027	0.001	<0.001	0.0041	0.0151	0.0014	<0.0002	0.0011	0.0028	0.006	0.001	<0.0002	<0.0006	<0.0005	<0.0005	<0.0005
SD014	06 May 2021	0902_QC202_210506	Interlab_D	RN1314562	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.01	0.094	0.056	0.15	-	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	0.014	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
SD014	25 Nov 2021	0902_SD014_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0005	0.0629	0.0064	0.0693	0.0896	0.0005	0.0004	0.0008	0.0017	<0.001	<0.0002	0.0022	0.0003	<0.0002	0.0009	0.0032	0.007	0.0012	0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	26 May 2022	0902_SD014_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0015	0.0003	0.0018	0.0018	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	26 May 2022	0902_QC204_220526	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0001	0.0059	0.0008	0.0067	0.0068	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD014	11 Nov 2022	0902_SD014_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.0096	0.0021	0.0117	0.0124	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	0.0004	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD014	11 May 2023	0902_SD014_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.0038	0.0003	0.0041	0.0041	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	03 Jul 2017	0902_SD015_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0003	0.0367	0.0033	0.04	0.0437	<0.0002	<0.0002	0.0003	0.0005	0.001	<0.0002	0.0002	<0.0002	0.0003	0.0003	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	0.0006	<0.0005	<0.0005
SD015	27 Feb 2018	0902_SD015_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.0003	0.0179	0.0019	0.0198	0.0201	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	15 Nov 2019	0902_SD015_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0221	0.0016	0.0237	0.0243	<0.0002	<0.0002	<0.0002	0.0003	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	15 Nov 2019	0902_QC106_191115	Field_D	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0153	0.0012	0.0165	0.017	<0.0002	<0.0

Table T6 - Sediment Historical Analytical Results

							PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR							0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**							
SD007	11 Nov 2022	0902_SD007_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD007	11 May 2023	0902_SD007_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	03 Jul 2017	0902_SD008_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	27 Feb 2018	0902_SD008_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	08 Nov 2019	0902_SD008_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	0.0012	<0.0005
SD008	14 May 2020	0902_SD008_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	14 May 2020	0902_QC108_200514	Field_D	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	12 Nov 2020	0902_SD008_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	06 May 2021	0902_SD008_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	29 Nov 2021	0902_SD008_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	29 Nov 2021	0902_QC114_211129	Field_D	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	26 May 2022	0902_SD008_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	11 Nov 2022	0902_SD008_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD008	11 May 2023	0902_SD008_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	03 Jul 2017	0902_SD009_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.001	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	15 Jan 2018	0902_SD009_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.0048	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	05 Feb 2018	0902_SD09_050218	Normal	ES1804510	NSW_0902_PFAS	ERA	0.0011	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	27 Feb 2018	0902_SD009_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.0009	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	04 Nov 2019	0902_SD009_191104	Normal	ES1936326	NSW_0902_PFASOMP	201911_AECOM_OMP	0.002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	14 May 2020	0902_SD009_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	0.004	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	12 Nov 2020	0902_SD009_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0018	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	06 May 2021	0902_SD009_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0004	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	29 Nov 2021	0902_SD009_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	29 Nov 2021	0902_QC215_211129	Interlab_D	284165	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD009	26 May 2022	0902_SD009_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	18 Nov 2022	0902_SD009_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD009	11 May 2023	0902_SD009_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	04 Jul 2017	0902_SD011_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0106	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	04 Jul 2017	0902_QC206_040717	Interlab_D	170811	NSW_0902_PFAS	Early Works Program	0.004	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD011	15 Jan 2018	0902_SD011_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	0.0072	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	27 Feb 2018	0902_SD011_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	27 Feb 2018	0902_QC221_270218	Interlab_D	186339	NSW_0902_PFAS	DSI	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD011	08 Nov 2019	0902_SD011_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	15 May 2020	0902_SD011_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0005	<0.0012	<0.0005	<0.0012	<0.0012	<0.0005	<0.0012
SD011	12 Nov 2020	0902_SD011_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0008	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	07 May 2021	0902_SD011_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	29 Nov 2021	0902_SD011_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0007	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	27 May 2022	0902_SD011_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	11 Nov 2022	0902_SD011_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD011	11 May 2023	0902_SD011_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	0.0003	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	03 Jul 2017	0902_SD013_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	08 Nov 2019	0902_SD013_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	0.0005	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	14 May 2020	0902_SD013_200514	Normal	ES2016714	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	14 May 2020	0902_QC209_200514	Interlab_D	RN1275075	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.001	<0.002	<0.002	<0.005	<0.002	<0.002	<0.005
SD013	12 Nov 2020	0902_SD013_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	06 May 2021	0902_SD013_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	29 Nov 2021	0902_SD013_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	27 May 2022	0902_SD013_220527	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	18 Nov 2022	0902_SD013_221118	Normal	ES2241892	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD013	11 May 2023	0902_SD013_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	03 Jul 2017	0902_SD014_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	08 Nov 2019	0902_SD014_191108	Normal	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	08 Nov 2019	0902_QC103_191108	Field_D	ES1937038	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	14 May 2020	0902_SD014_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	12 Nov 2020	0902_SD014_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	06 May 2021	0902_SD014_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0003	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006
SD014	06 May 2021	0902_QC202_210506	Interlab_D	RN1314562	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02
SD014	25 Nov 2021	0902_SD014_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	0.0006	<0.0006	<0.0002	<0.0006	<0.0006	<0.0002	<0.0006
SD014	26 May 2022	0902_SD014_220526	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	26 May 2022	0902_QC204_220526	Interlab_D	296820	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.001	<0.001	<0.0002	<0.001	<0.001	<0.0002	<0.005
SD014	11 Nov 2022	0902_SD014_221111	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD014	11 May 2023	0902_SD014_230511	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	03 Jul 2017	0902_SD015_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	27 Feb 2018	0902_SD015_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	15 Nov 2019	0902_SD015_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	15 Nov 2019	0902_QC106_191115	Field_D	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	14 May 2020	0902_SD015_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005
SD015	12 Nov 2020	0902_SD015_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	<0.0005	<0.0002	<0.0005	<0.0005	<0.0002	<0.0005

Table T6 - Sediment Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids			
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																							
SD015	05 May 2021	0902_SD015_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.0002	0.0048	0.0005	0.0053	0.0062	<0.0002	<0.0002	<0.0002	0.0009	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	29 Nov 2021	0902_SD015_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.0016	<0.0002	0.0016	0.0016	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	30 May 2022	0902_SD015_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0044	0.0005	0.0049	0.0049	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	30 May 2022	0902_QC110_220530	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0031	0.0005	0.0036	0.0039	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	10 Nov 2022	0902_SD015_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.003	0.0006	0.0036	0.0036	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD015	10 May 2023	0902_SD015_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.011	0.0008	0.0118	0.0125	<0.0002	<0.0002	<0.0002	0.0007	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	03 Jul 2017	0902_SD016_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	<0.0002	0.0022	<0.0002	0.0022	0.0022	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	15 Jan 2018	0902_SD016_180115	Normal	ES1804867	NSW_0902_PFAS	ERA	<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	27 Feb 2018	0902_SD016_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	<0.0002	0.0027	<0.0002	0.0027	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	14 Nov 2019	0902_SD016_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0005	<0.0002	0.0005	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	14 Nov 2019	0902_QC204_191114	Interlab_D	RN1253933	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.001	0.004	<0.001	0.004	-	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.002
SD016	14 May 2020	0902_SD016_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	0.0037	<0.0002	0.0037	0.0037	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	13 Nov 2020	0902_SD016_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	0.0015	<0.0002	0.0015	0.0015	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	05 May 2021	0902_SD016_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0005	0.008	0.0006	0.0086	0.0091	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	29 Nov 2021	0902_SD016_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.0027	<0.0002	0.0027	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	30 May 2022	0902_SD016_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0009	<0.0002	0.0009	0.0009	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	10 Nov 2022	0902_SD016_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.0069	0.0004	0.0073	0.0073	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD016	10 May 2023	0902_SD016_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.0042	0.0005	0.0047	0.0047	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	04 Jul 2017	0902_SD018_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0013	0.0235	0.0014	0.0249	0.035	<0.0002	<0.0002	0.0002	0.0004	<0.001	0.0005	0.0005	0.0005	0.0011	0.0037	0.0012	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	27 Feb 2018	0902_SD018_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	0.0004	0.002	<0.0002	0.002	0.003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0004	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	25 Nov 2019	0902_SD018_191125	Normal	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	0.0005	0.0071	0.0004	0.0075	0.0103	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0006	0.0009	0.0002	0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	25 Nov 2019	0902_QC110_191125	Field_D	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	0.0005	0.006	0.0004	0.0064	0.0096	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0007	0.0011	0.0003	0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	15 May 2020	0902_SD018_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0005	<0.0005	<0.0005	<0.0005	0.0015	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	0.0007	<0.0002	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005
SD018	13 Nov 2020	0902_SD018_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	0.0009	0.0004	0.0013	0.0026	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.001	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	29 Nov 2021	0902_SD018_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.0005	<0.0002	0.0005	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	31 May 2022	0902_SD018_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0004	<0.0002	0.0004	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	07 Nov 2022	0902_SD018_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.0022	0.0005	0.0027	0.0027	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD018	10 May 2023	0902_SD018_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.0002	<0.0002	0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	04 Jul 2017	0902_SD019_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	<0.0002	0.0027	0.0005	0.0032	0.0032	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	25 Nov 2019	0902_SD019_191125	Normal	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0016	<0.0002	0.0016	0.0016	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	15 May 2020	0902_SD019_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	0.0014	<0.0002	0.0014	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	13 Nov 2020	0902_SD019_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	0.0014	<0.0002	0.0014	0.0014	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	07 May 2021	0902_SD019_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0002	0.0036	0.0006	0.0042	0.0044	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	29 Nov 2021	0902_SD019_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.0056	0.0009	0.0065	0.0065	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	31 May 2022	0902_SD019_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0008	<0.0002	0.0008	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	07 Nov 2022	0902_SD019_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.0023	<0.0002	0.0023	0.0023	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD019	10 May 2023	0902_SD019_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.0005	<0.0002	0.0005	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	13 Nov 2017	0902_SD20_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	25 Nov 2019	0902_SD020_191125	Normal	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	15 May 2020	0902_SD020_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	13 Nov 2020	0902_SD020_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	07 May 2021	0902_SD020_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.0002	0.0055	<0.0002	0.0055	0.0055	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	29 Nov 2021	0902_SD020_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.0047	<0.0002	0.0047	0.0047	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	31 May 2022	0902_SD020_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0007	<0.0002	0.0007	0.0007	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	07 Nov 2022	0902_SD020_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.0007	<0.0002	0.0007	0.0007	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD020	10 May 2023	0902_SD020_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	13 Nov 2017	0902_SD22_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	<0.0002	0.0014	<0.0002	0.0014	0.0101	<0.0002	<0.0002	<0.0002	0.0058	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	15 Nov 2019	0902_SD022_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0004	<0.0002	0.0004	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	15 Nov 2019	0902_QC108_191115	Field_D	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0003	<0.0002	0.0003	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	15 May 2020	0902_SD022_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0005	0.0037	<0.0005	0.0037	0.0068	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0017	0.0014	<0.0005	<0.0012	<0.0005	<0.0005	<0.0005	<0.0005
SD022	13 Nov 2020	0902_SD022_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	0.0003	0.0047	0.0004	0.0051	0.0144	<0.0002	<0.0002	<0.0002	0.0068	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0008	0.0003	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	05 May 2021	0902_SD022_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0002	0.0036	0.0003	0.0039	0.0095	<0.0002	<0.0002	<0.0002	0.0032	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	29 Nov 2021	0902_SD022_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.0027	0.0003	0.003	0.0045	<0.0002	<0.0002	<0.0002	0.0012	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	30 May 2022	0902_SD022_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	03 Nov 2022	0902_SD022_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.0049	0.0007	0.0056	0.0075	<0.0002	<0.0002	<0.0002	0.0011	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	03 Nov 2022	0902_QC102_221103	Field_D	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.01	0.0016	0.0116	0.0211	0.0002	<0.0002	<0.0002	0.0035	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD022	03 Nov 2022	0902_QC202_221103	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0001	0.0068	0.0009	0.0077	0.017	0.0001	0.0001	<0.0001	0.0053	<0.0002	<0.0002	0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD022	09 May 2023	0902_SD022_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	13 Nov 2017	0902_SD23_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	<0.0002	0.0158	0.0008	0.0166	0.0194	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0002	0.0003	<0.0002	<0.0002	0.0002	0.0005	0.0006	<0.0002	<0.0005	<0.0005	<0.0005	0.001	<0.0005
SD023	13 Nov 2017	0902_QC180_131117	Field_D	ES1728583	NSW_0902_PFAS	DSI	<0.0002	0.0126	0.0008	0.0134	0.0145	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0002	<0.0002	<0.0002	<0.0002	0.0002	0.0003	0.0004	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	15 Jan 2018	0902_SD023_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	<0.0002	0.0004	<0.0002	0.0004	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	15 Jan 2018	0902_QC111_180115	Field_D	ES1802266	NSW_0902_PFAS	HHRA	<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	11 Nov 2019	0902_SD023_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0075	0.0006	0.0081	0.0089	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	0.0003	0.0003	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	15 May 2020	0902_SD023_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.0005	0.0312	0.0008	0.032	0.0373	<0.0002	<0.0002	<0.0002	0.0003	0.002	<0.0002	0.0004	<0.0002	0.0004	0.0004	0.0004	0.0005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	13 Nov 2020	0902_SD023_201113	Normal	ES2040321	N

Table T6 - Sediment Historical Analytical Results

							PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR							0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**							
SD015	05 May 2021	0902_SD015_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD015	29 Nov 2021	0902_SD015_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD015	30 May 2022	0902_SD015_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD015	30 May 2022	0902_QC110_220530	Field_D	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD015	10 Nov 2022	0902_SD015_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD015	10 May 2023	0902_SD015_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD016	03 Jul 2017	0902_SD016_030717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD016	15 Jan 2018	0902_SD016_180115	Normal	ES1804867	NSW_0902_PFAS	ERA	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD016	27 Feb 2018	0902_SD016_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD016	14 Nov 2019	0902_SD016_191114	Normal	ES1937709	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD016	14 Nov 2019	0902_QC204_191114	Interlab_D	RN1253933	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.001*	*<0.002*	*<0.002*	*<0.005*	*<0.002*	*<0.002*	*<0.005*
SD016	14 May 2020	0902_SD016_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD016	13 Nov 2020	0902_SD016_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD016	05 May 2021	0902_SD016_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD016	29 Nov 2021	0902_SD016_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD016	30 May 2022	0902_SD016_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD016	10 Nov 2022	0902_SD016_221110	Normal	ES2240927	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD016	10 May 2023	0902_SD016_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD018	04 Jul 2017	0902_SD018_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	0.0004	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD018	27 Feb 2018	0902_SD018_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD018	25 Nov 2019	0902_SD018_191125	Normal	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD018	25 Nov 2019	0902_QC110_191125	Field_D	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD018	15 May 2020	0902_SD018_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.0005*	*<0.0012*	*<0.0005*	*<0.0012*	*<0.0012*	*<0.0005*	*<0.0012*
SD018	13 Nov 2020	0902_SD018_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD018	29 Nov 2021	0902_SD018_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD018	31 May 2022	0902_SD018_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD018	07 Nov 2022	0902_SD018_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD018	10 May 2023	0902_SD018_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD019	04 Jul 2017	0902_SD019_040717	Normal	ES1716547	NSW_0902_PFAS	Early Works Program	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD019	25 Nov 2019	0902_SD019_191125	Normal	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD019	15 May 2020	0902_SD019_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD019	13 Nov 2020	0902_SD019_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD019	07 May 2021	0902_SD019_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD019	29 Nov 2021	0902_SD019_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD019	31 May 2022	0902_SD019_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD019	07 Nov 2022	0902_SD019_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD019	10 May 2023	0902_SD019_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD020	13 Nov 2017	0902_SD20_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD020	25 Nov 2019	0902_SD020_191125	Normal	ES1938926	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD020	15 May 2020	0902_SD020_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD020	13 Nov 2020	0902_SD020_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD020	07 May 2021	0902_SD020_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD020	29 Nov 2021	0902_SD020_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD020	31 May 2022	0902_SD020_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD020	07 Nov 2022	0902_SD020_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD020	10 May 2023	0902_SD020_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD022	13 Nov 2017	0902_SD22_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	0.0003	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0024	*<0.0005*
SD022	15 Nov 2019	0902_SD022_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD022	15 Nov 2019	0902_QC108_191115	Field_D	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD022	15 May 2020	0902_SD022_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.0005*	*<0.0012*	*<0.0005*	*<0.0012*	*<0.0012*	*<0.0005*	*<0.0012*
SD022	13 Nov 2020	0902_SD022_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0006	*<0.0005*
SD022	05 May 2021	0902_SD022_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	0.0012	*<0.0005*
SD022	29 Nov 2021	0902_SD022_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD022	30 May 2022	0902_SD022_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD022	03 Nov 2022	0902_SD022_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	0.0005	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD022	03 Nov 2022	0902_QC102_221103	Field_D	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	0.0013	*<0.0005*	0.0006	*<0.0005*	*<0.0005*	0.0033	*<0.0005*
SD022	03 Nov 2022	0902_QC202_221103	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	0.001	*<0.001*	0.0003	*<0.001*	*<0.001*	0.0021	*<0.005*
SD022	09 May 2023	0902_SD022_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	13 Nov 2017	0902_SD23_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	13 Nov 2017	0902_QC180_131117	Field_D	ES1728583	NSW_0902_PFAS	DSI	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	15 Jan 2018	0902_SD023_180115	Normal	ES1802266	NSW_0902_PFAS	HHRA	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	15 Jan 2018	0902_QC111_180115	Field_D	ES1802266	NSW_0902_PFAS	HHRA	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	11 Nov 2019	0902_SD023_191111	Normal	ES1937214	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	15 May 2020	0902_SD023_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	0.0004	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	13 Nov 2020	0902_SD023_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	25 Nov 2021	0902_SD023_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	25 Nov 2021	0902_QC109_211125	Field_D	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	31 May 2022	0902_SD023_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*

Table T6 - Sediment Historical Analytical Results

							PFAS					PFAS - Perfluoroalkyl Sulfonic Acids					PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids			
							Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	0.0005	0.0001	0.0001	0.0001	0.0001
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**																							
SD023	07 Nov 2022	0902_SD023_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.0023	0.0005	0.0028	0.0028	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	07 Nov 2022	0902_QC110_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.002	0.0004	0.0024	0.0024	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD023	10 May 2023	0902_SD023_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.0004	<0.0002	0.0004	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	13 Nov 2017	0902_SD24_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	15 Nov 2019	0902_SD024_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	14 May 2020	0902_SD024_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	12 Nov 2020	0902_SD024_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	05 May 2021	0902_SD024_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	26 Nov 2021	0902_SD024_211126	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	31 May 2022	0902_SD024_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0009	<0.0002	0.0009	0.0012	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	03 Nov 2022	0902_SD024_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD024	09 May 2023	0902_SD024_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.0005	<0.0002	0.0005	0.0005	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	17 Nov 2013	0902_QC281_131117	Interlab_D	179767	NSW_0902_PFAS	DSI	<0.0001	<0.0001	<0.0001	<0.0001	-	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0001	<0.0001
SD030	13 Nov 2017	0902_SD30_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	18 Jan 2018	0902_SD030_180118	Normal	ES1802644	NSW_0902_PFAS	HHRA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	27 Feb 2018	0902_SD030_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	15 Nov 2019	0902_SD030_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	0.0003	<0.0002	0.0003	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	15 May 2020	0902_SD030_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	13 Nov 2020	0902_SD030_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	07 May 2021	0902_SD030_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	29 Nov 2021	0902_SD030_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	31 May 2022	0902_SD030_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	07 Nov 2022	0902_SD030_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	07 Nov 2022	0902_QC210_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0001	0.0025	0.0003	0.0029	0.0032	<0.0001	<0.0001	<0.0001	0.0004	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD030	10 May 2023	0902_SD030_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	10 May 2023	0902_QC108_230510	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD030	10 May 2023	0902_QC208_230510	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0001	0.0001	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002
SD032	13 Nov 2017	0902_SD32_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	0.0004	0.0532	0.0017	0.0549	0.0623	0.0003	<0.0002	<0.0002	0.003	<0.001	0.0005	0.0009	0.0002	0.0003	0.0012	0.0006	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD032	13 Nov 2017	0902_SD32_131117	Normal	ES1730910	NSW_0902_PFAS	DSI	0.0004	0.0532	0.0017	0.0549	0.0623	0.0003	<0.0002	<0.0002	0.003	<0.001	0.0005	0.0009	0.0002	0.0003	0.0012	0.0006	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD032	12 May 2020	0902_SD032_200512	Normal	ES2016272	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	0.0108	0.0012	0.012	0.0124	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD032	11 Nov 2020	0902_SD032_201111	Normal	ES2039911	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	0.0012	0.0003	0.0015	0.0015	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD032	04 May 2021	0902_SD032_210504	Normal	ES2116724	NSW_0902_PFASOMP	202105_AECOM_OMP	0.0008	0.0293	0.0042	0.0335	0.0359	<0.0002	<0.0002	0.0007	<0.0002	<0.001	0.0002	0.0007	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD032	14 Dec 2021	0902_SD032_211214	Normal	ES2145705	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.0044	0.0015	0.0059	0.0062	0.0003	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	16 Nov 2017	0902_SD035_161117	Normal	ES1729043	NSW_0902_PFAS	DSI	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	15 Nov 2019	0902_SD035_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	14 May 2020	0902_SD035_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	<0.0002	0.0012	<0.0002	0.0012	0.0022	<0.0002	<0.0002	<0.0002	<0.0002	0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	13 Nov 2020	0902_SD035_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	<0.0002	0.0003	<0.0002	0.0003	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	06 May 2021	0902_SD035_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	<0.0002	0.0021	<0.0002	0.0021	0.0021	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	25 Nov 2021	0902_SD035_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	<0.0002	0.0018	0.0004	0.0022	0.0022	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	30 May 2022	0902_SD035_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	<0.0002	0.0015	0.0004	0.0019	0.0019	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	03 Nov 2022	0902_SD035_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	09 May 2023	0902_SD035_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.0008	<0.0002	0.0008	0.0008	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	09 May 2023	0902_QC106_230509	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0002	0.0006	<0.0002	0.0006	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.001	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
SD035	09 May 2023	0902_QC206_230509	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	<0.0001	0.0007	<0.0001	0.0007	0.0007	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.005	<0.0001	<0.0001	<0.0002	<0.0002

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Table T6 - Sediment Historical Analytical Results

							PFAS - Perfluoroalkyl Sulfonamides						
							Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR							0.0002	0.0005	0.0002	0.0005	0.0005	0.0002	0.0005
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**	**Project ID**	**Monitoring Round**							
SD023	07 Nov 2022	0902_SD023_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	07 Nov 2022	0902_QC110_221107	Field_D	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD023	10 May 2023	0902_SD023_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD024	13 Nov 2017	0902_SD24_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD024	15 Nov 2019	0902_SD024_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD024	14 May 2020	0902_SD024_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD024	12 Nov 2020	0902_SD024_201112	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD024	05 May 2021	0902_SD024_210505	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD024	26 Nov 2021	0902_SD024_211126	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD024	31 May 2022	0902_SD024_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD024	03 Nov 2022	0902_SD024_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD024	09 May 2023	0902_SD024_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	17 Nov 2013	0902_QC281_131117	Interlab_D	179767	NSW_0902_PFAS	DSI	*<0.001*	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*
SD030	13 Nov 2017	0902_SD30_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	18 Jan 2018	0902_SD030_180118	Normal	ES1802644	NSW_0902_PFAS	HHRA	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	27 Feb 2018	0902_SD030_270218	Normal	ES1806139	NSW_0902_PFAS	DSI	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	15 Nov 2019	0902_SD030_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	15 May 2020	0902_SD030_200515	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	13 Nov 2020	0902_SD030_201113	Normal	ES2040357	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	07 May 2021	0902_SD030_210507	Normal	ES2117172	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	29 Nov 2021	0902_SD030_211129	Normal	ES2143536	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	31 May 2022	0902_SD030_220531	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	07 Nov 2022	0902_SD030_221107	Normal	ES2240328	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	07 Nov 2022	0902_QC210_221107	Interlab_D	310103	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.001*	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*
SD030	10 May 2023	0902_SD030_230510	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	10 May 2023	0902_QC108_230510	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD030	10 May 2023	0902_QC208_230510	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.001*	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*
SD032	13 Nov 2017	0902_SD32_131117	Normal	ES1728583	NSW_0902_PFAS	DSI	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD032	13 Nov 2017	0902_SD32_131117	Normal	ES1730910	NSW_0902_PFAS	DSI	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD032	12 May 2020	0902_SD032_200512	Normal	ES2016272	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD032	11 Nov 2020	0902_SD032_201111	Normal	ES2039911	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD032	04 May 2021	0902_SD032_210504	Normal	ES2116724	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD032	14 Dec 2021	0902_SD032_211214	Normal	ES2145705	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	16 Nov 2017	0902_SD035_161117	Normal	ES1729043	NSW_0902_PFAS	DSI	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	15 Nov 2019	0902_SD035_191115	Normal	ES1937863	NSW_0902_PFASOMP	201911_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	14 May 2020	0902_SD035_200514	Normal	ES2016935	NSW_0902_PFASOMP	202005_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	13 Nov 2020	0902_SD035_201113	Normal	ES2040321	NSW_0902_PFASOMP	202011_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	06 May 2021	0902_SD035_210506	Normal	ES2117098	NSW_0902_PFASOMP	202105_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	25 Nov 2021	0902_SD035_211125	Normal	ES2143118	NSW_0902_PFASOMP	202111_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	30 May 2022	0902_SD035_220530	Normal	ES2219017-AA	NSW_0902_PFASOMP	202205_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	03 Nov 2022	0902_SD035_221103	Normal	ES2239683	NSW_0902_PFASOMP	202211_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	09 May 2023	0902_SD035_230509	Normal	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	09 May 2023	0902_QC106_230509	Field_D	ES2316196	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.0002*	*<0.0005*	*<0.0002*	*<0.0005*	*<0.0005*	*<0.0002*	*<0.0005*
SD035	09 May 2023	0902_QC206_230509	Interlab_D	323268	NSW_0902_PFASOMP_23	202305_AECOM_OMP	*<0.001*	*<0.001*	*<0.0002*	*<0.001*	*<0.001*	*<0.0002*	*<0.005*

Notes

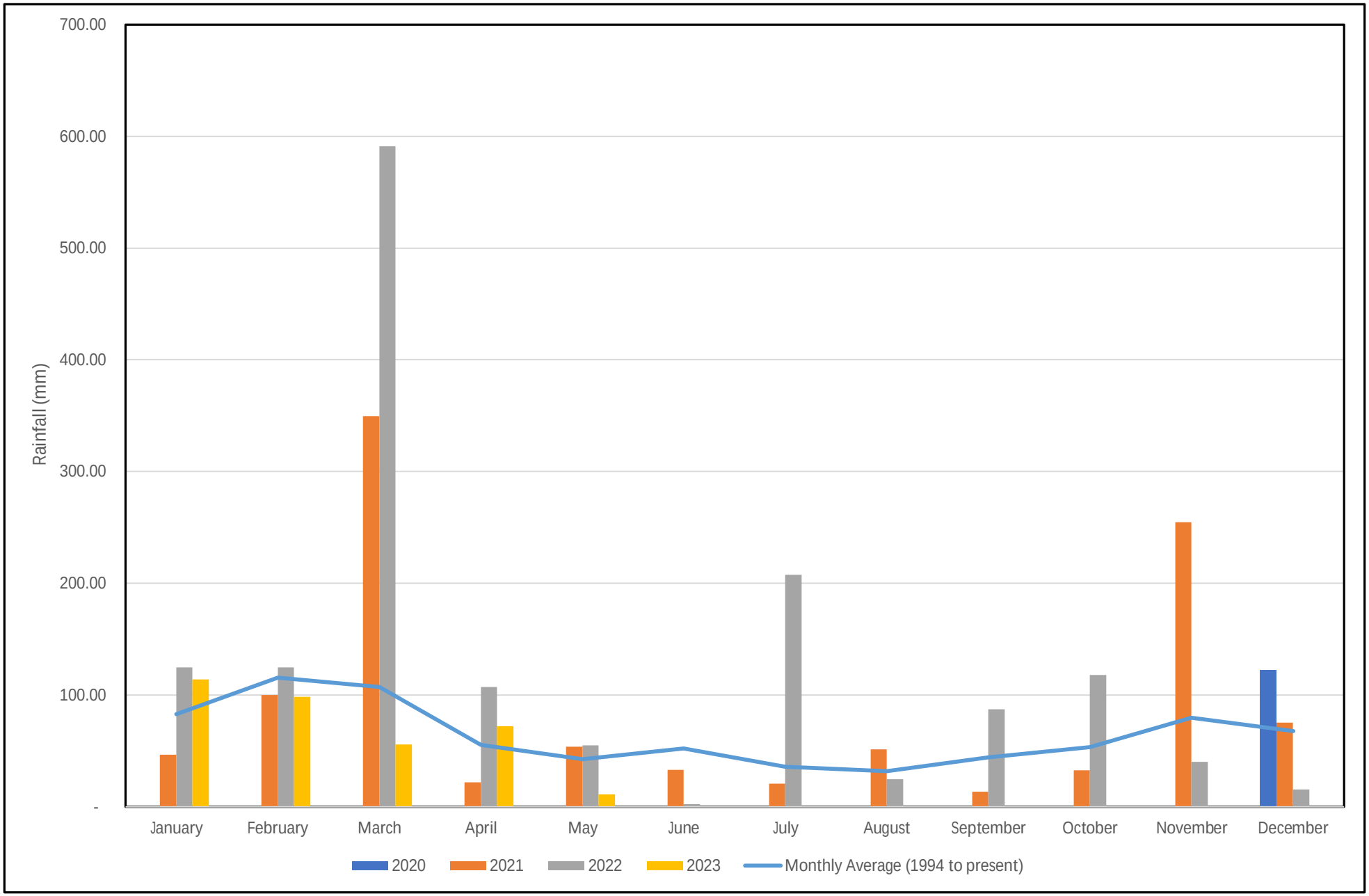
LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Appendix D

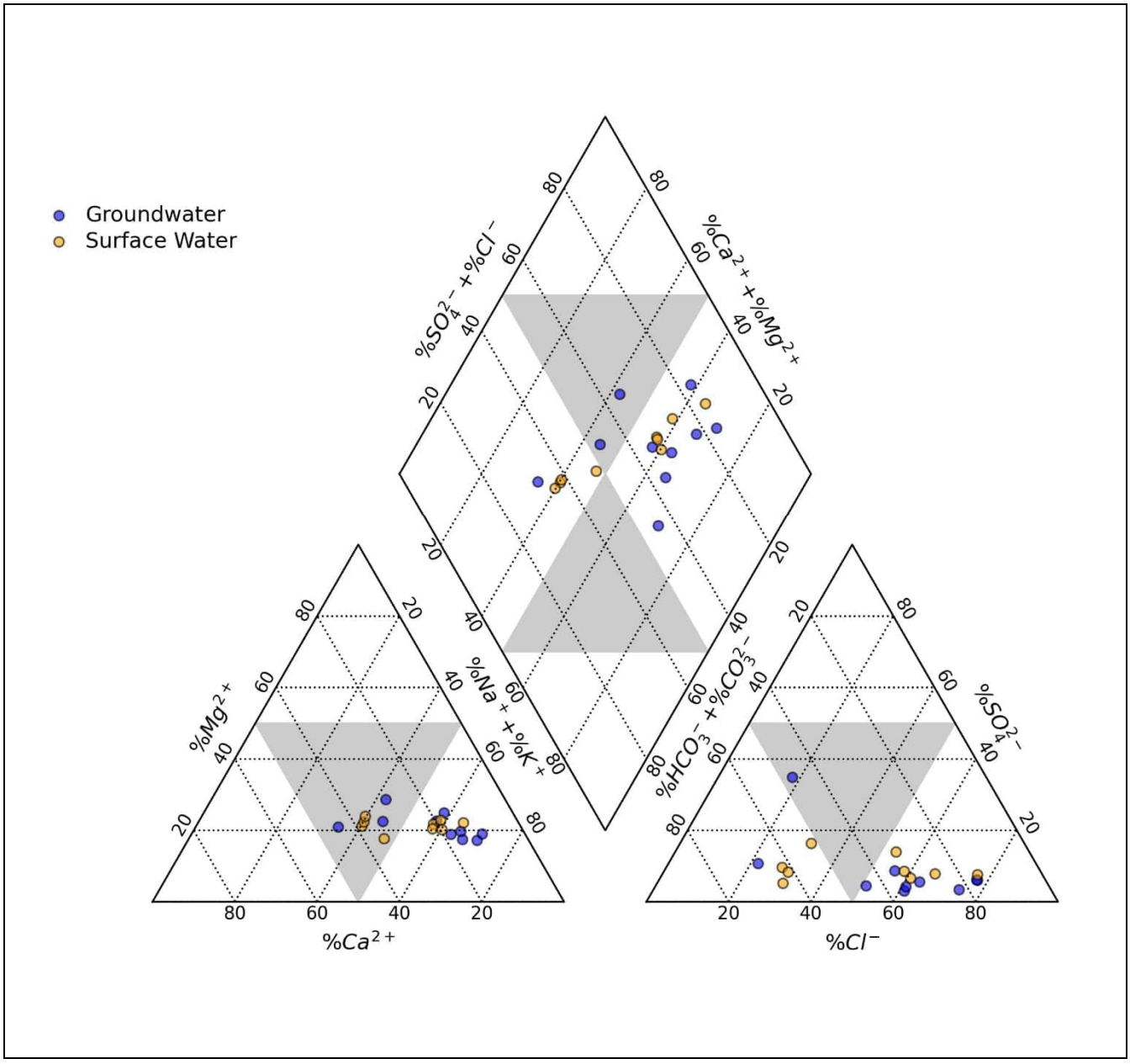
Graphs

Appendix D

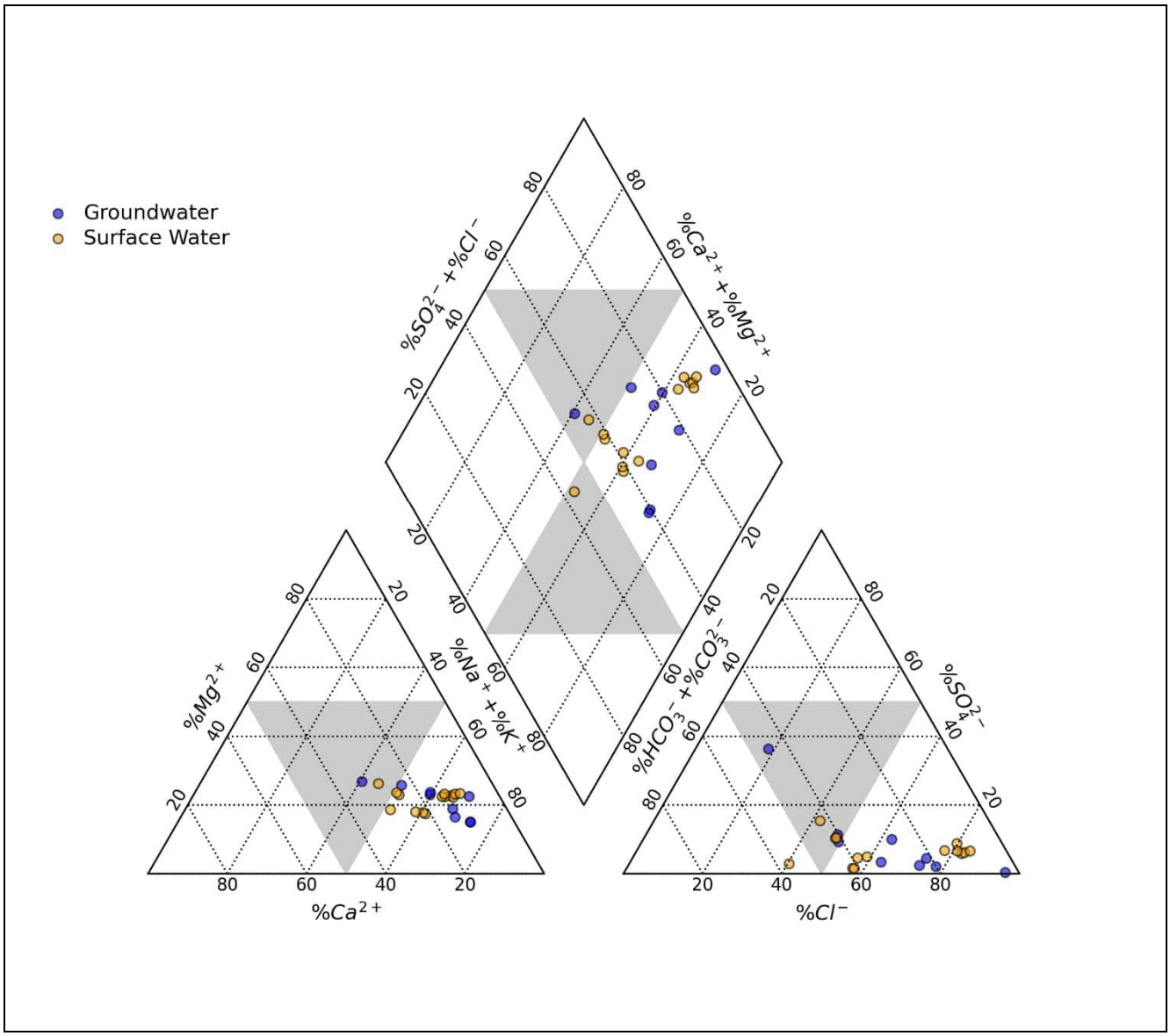
Graph G1: Monthly Rainfall

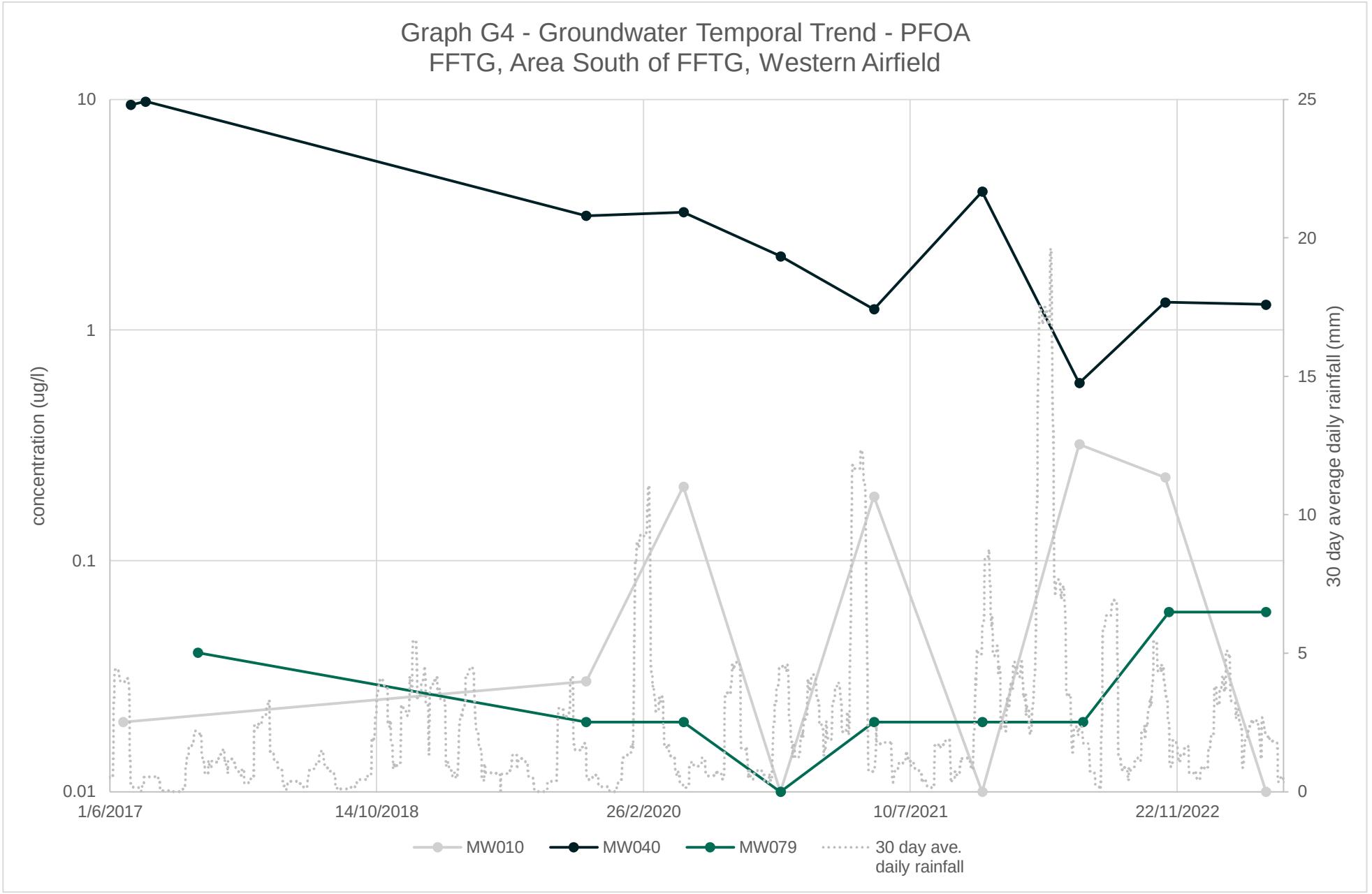


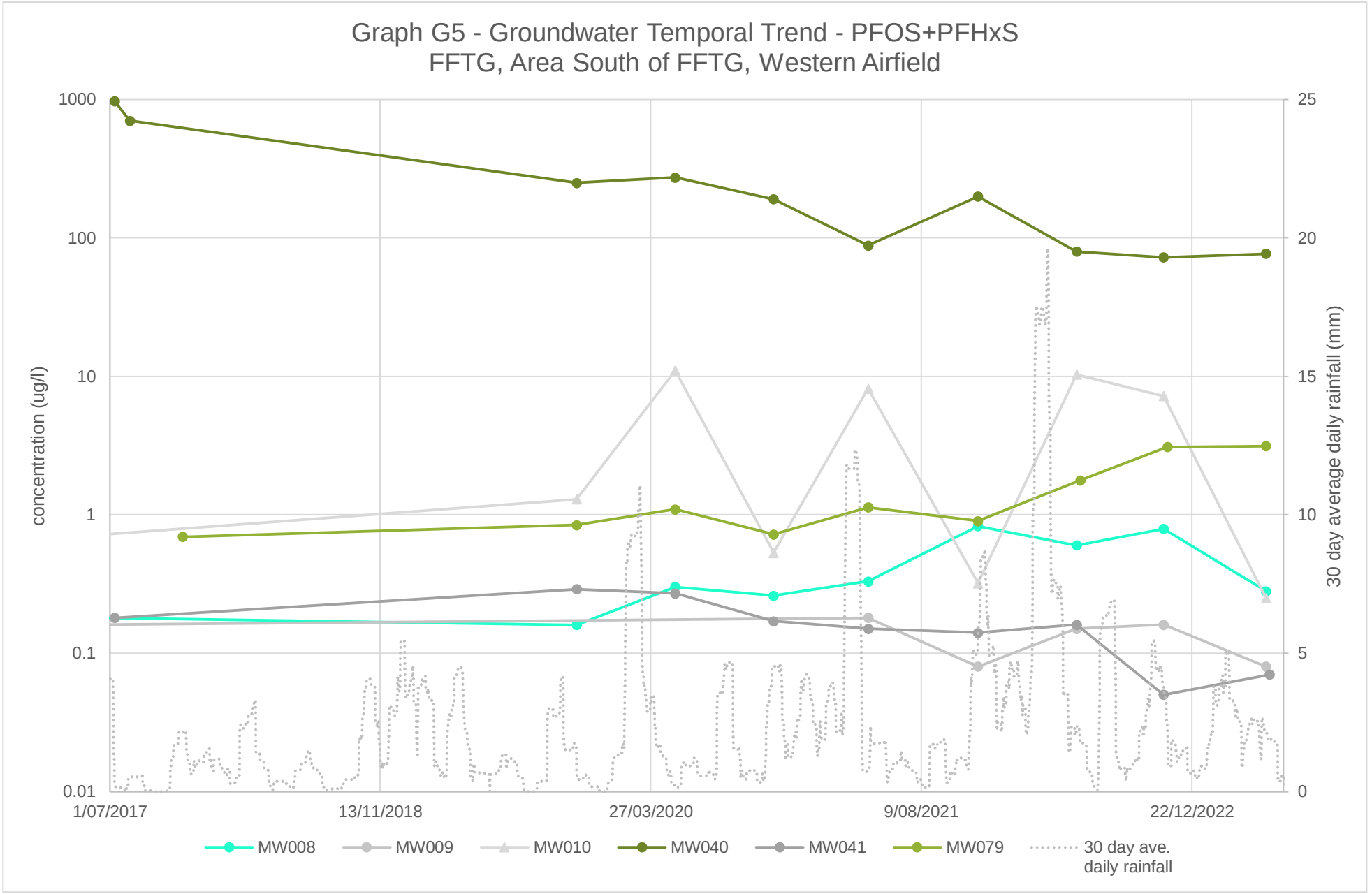
Graph G2: Piper Plot – November 2021

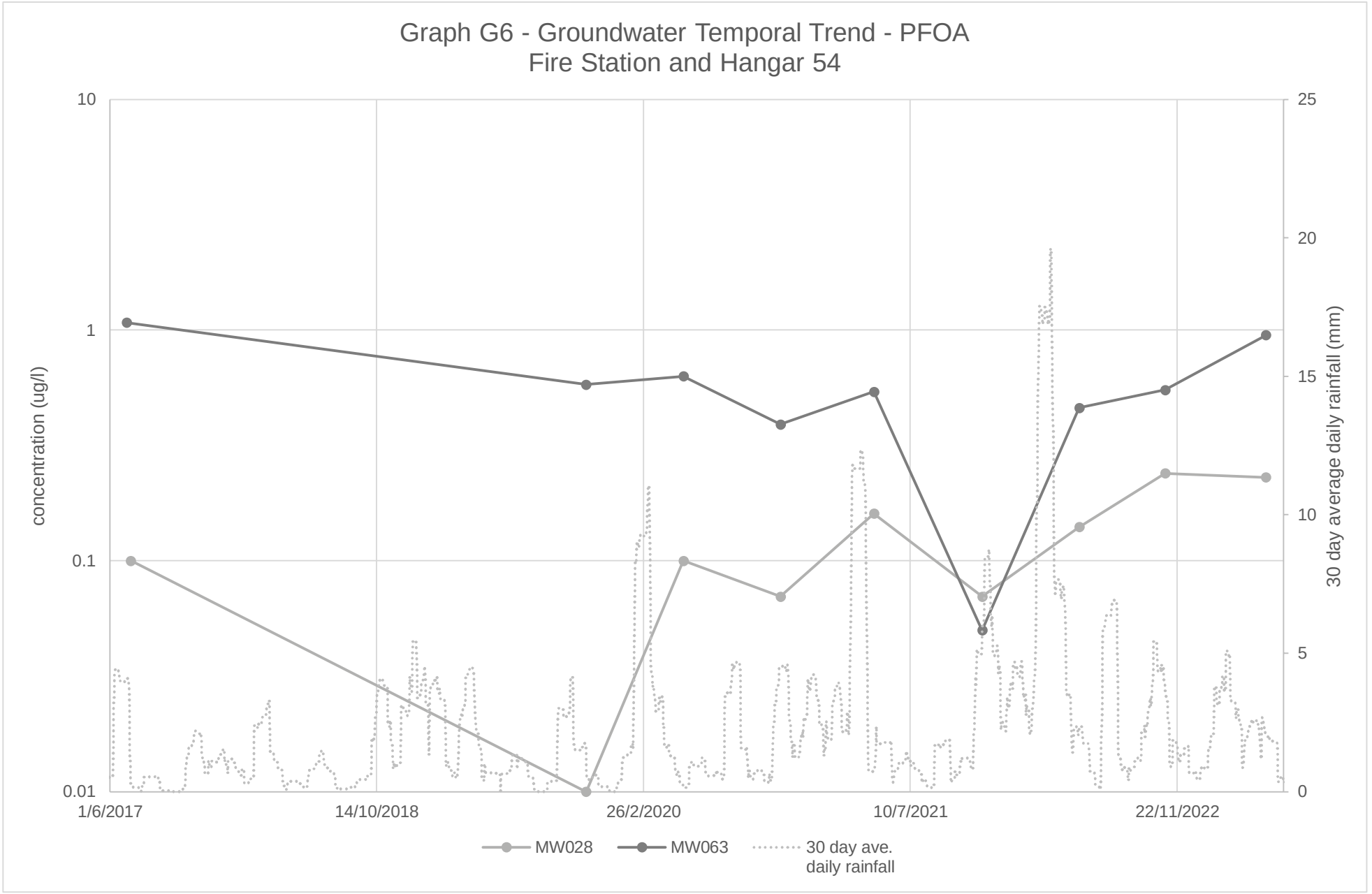


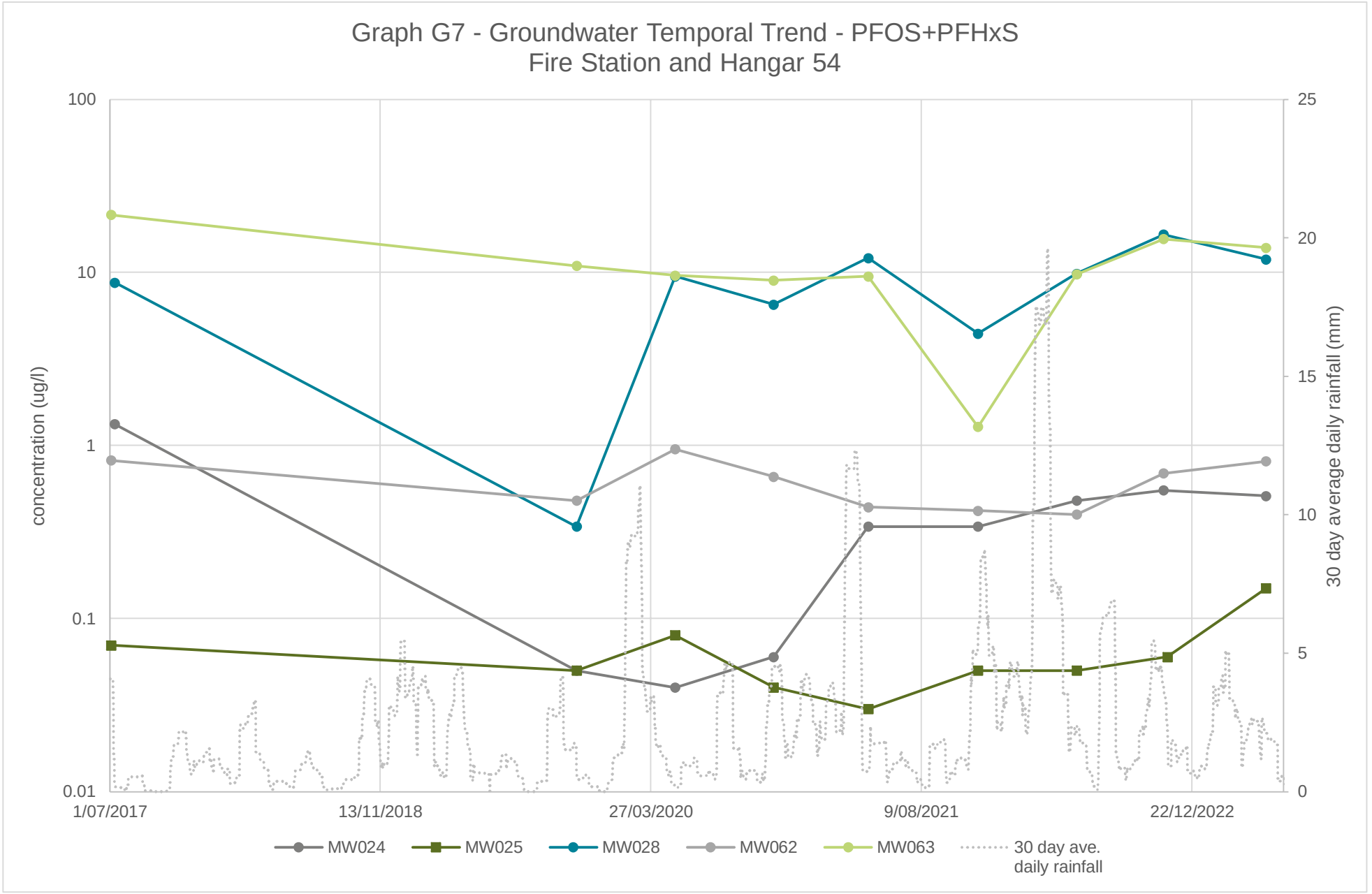
Graph G3: – Piper Plot – November 2022

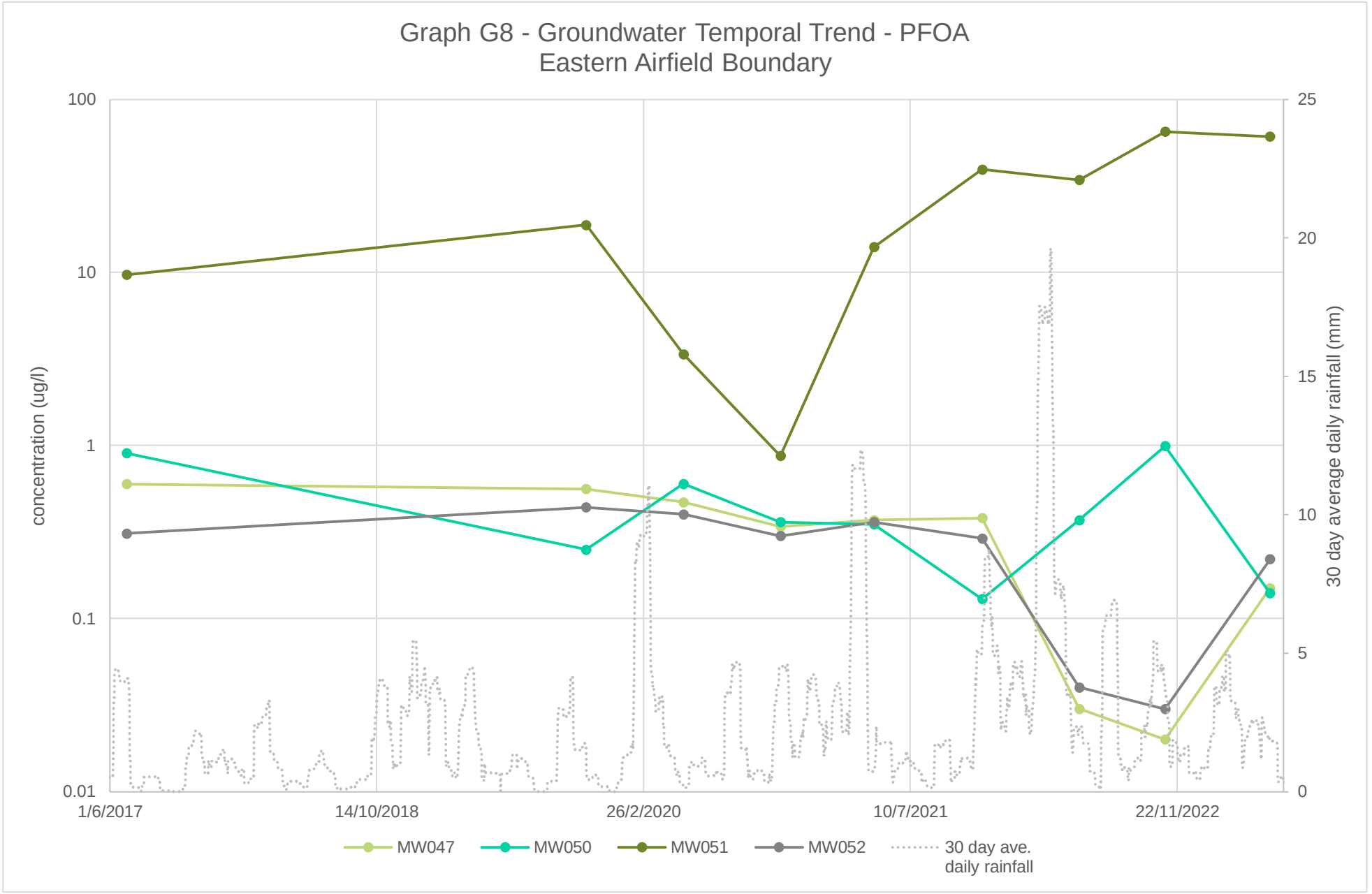


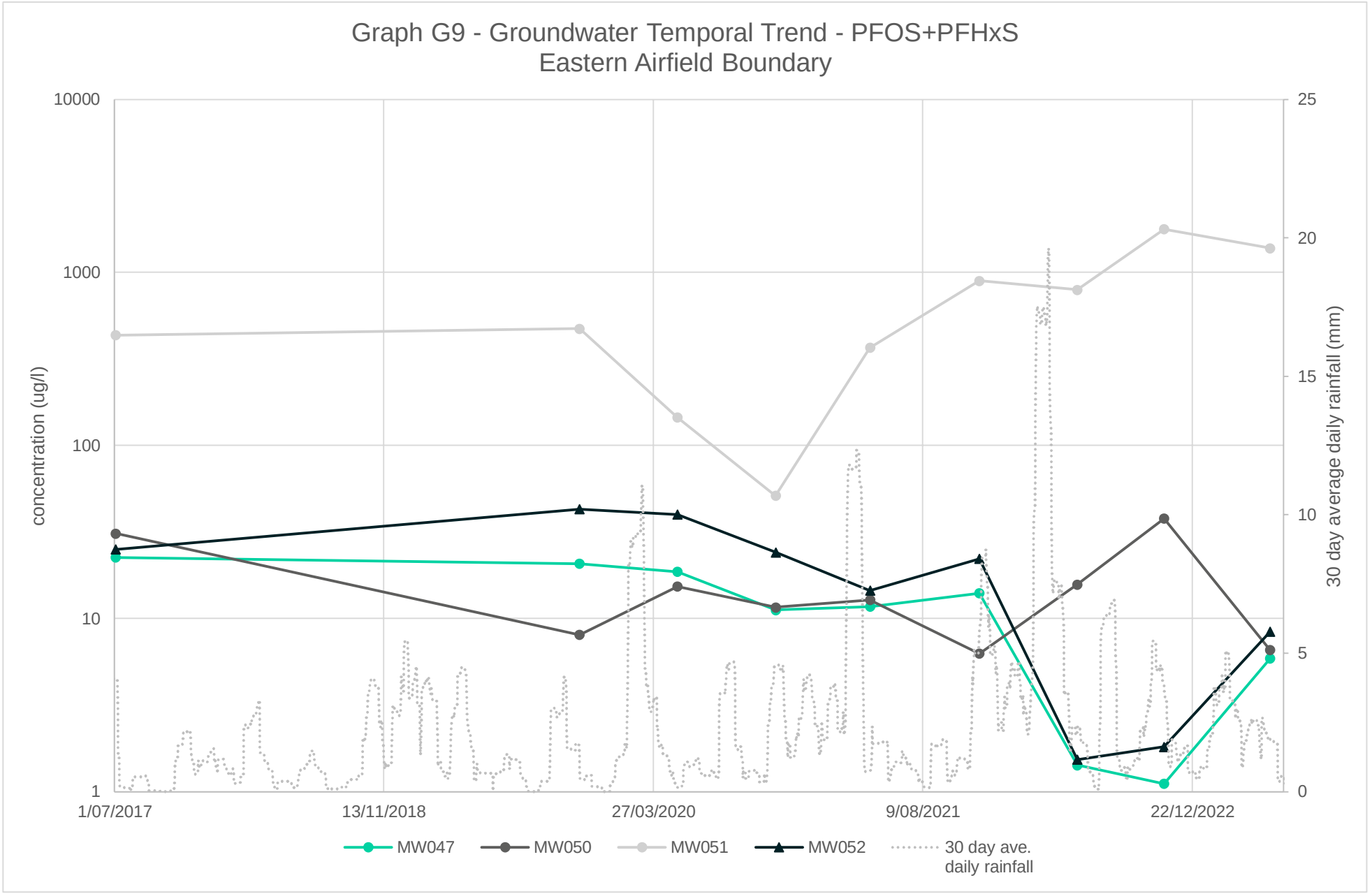

Graph G4 - Groundwater Temporal Trend - PFOA
FFTG, Area South of FFTG, Western Airfield
concentration (ug/l)
10
1
0.1
0.01
30 day average daily rainfall (mm)
25
20
15
10
5
0
1/6/2017
14/10/2018
26/2/2020
10/7/2021
22/11/2022
MW010
MW040
MW079
30 day ave. daily rainfall

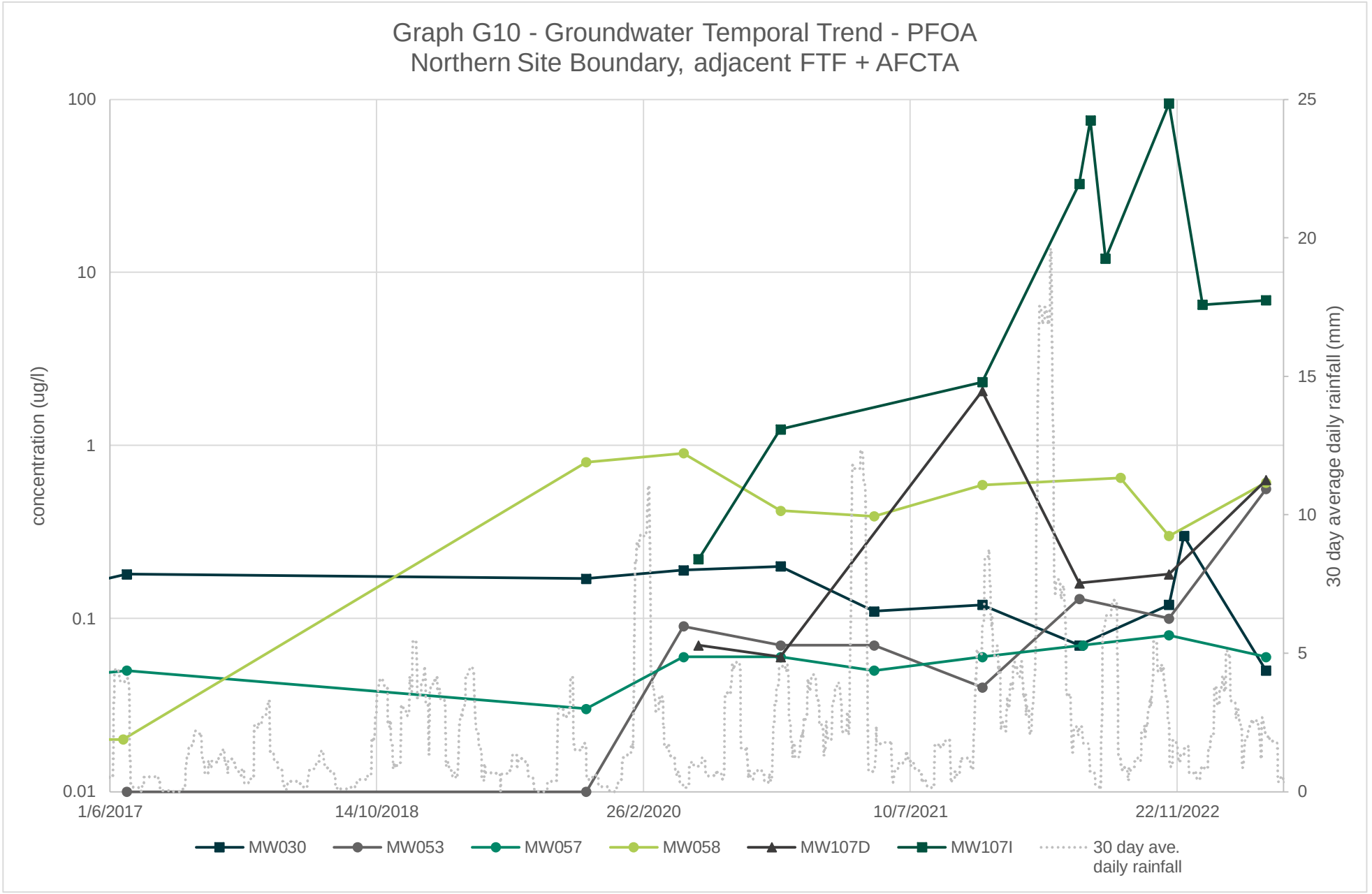

Graph G5 - Groundwater Temporal Trend - PFOS+PFHxS
FFTG, Area South of FFTG, Western Airfield
concentration (ug/l)
1000
100
10
1
0.1
0.01
30 day average daily rainfall (mm)
25
20
15
10
5
0
1/07/2017
13/11/2018
27/03/2020
9/08/2021
22/12/2022
MW008
MW009
MW010
MW040
MW041
MW079
30 day ave. daily rainfall

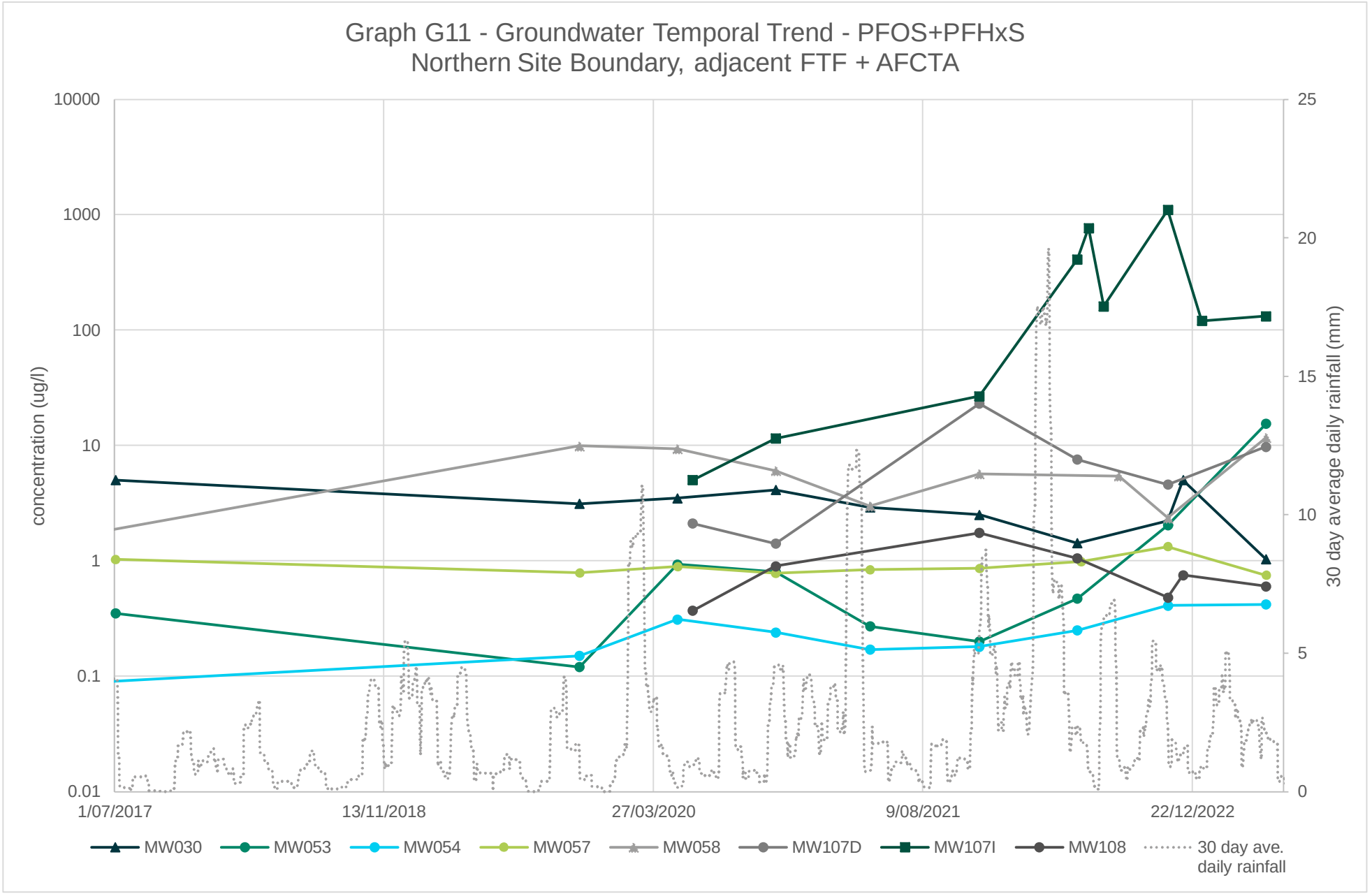

Graph G6 - Groundwater Temporal Trend - PFOA
Fire Station and Hangar 54
concentration (ug/l)
10
1
0.1
0.01
30 day average daily rainfall (mm)
25
20
15
10
5
0
1/6/2017
14/10/2018
26/2/2020
10/7/2021
22/11/2022
MW028
MW063
30 day ave. daily rainfall

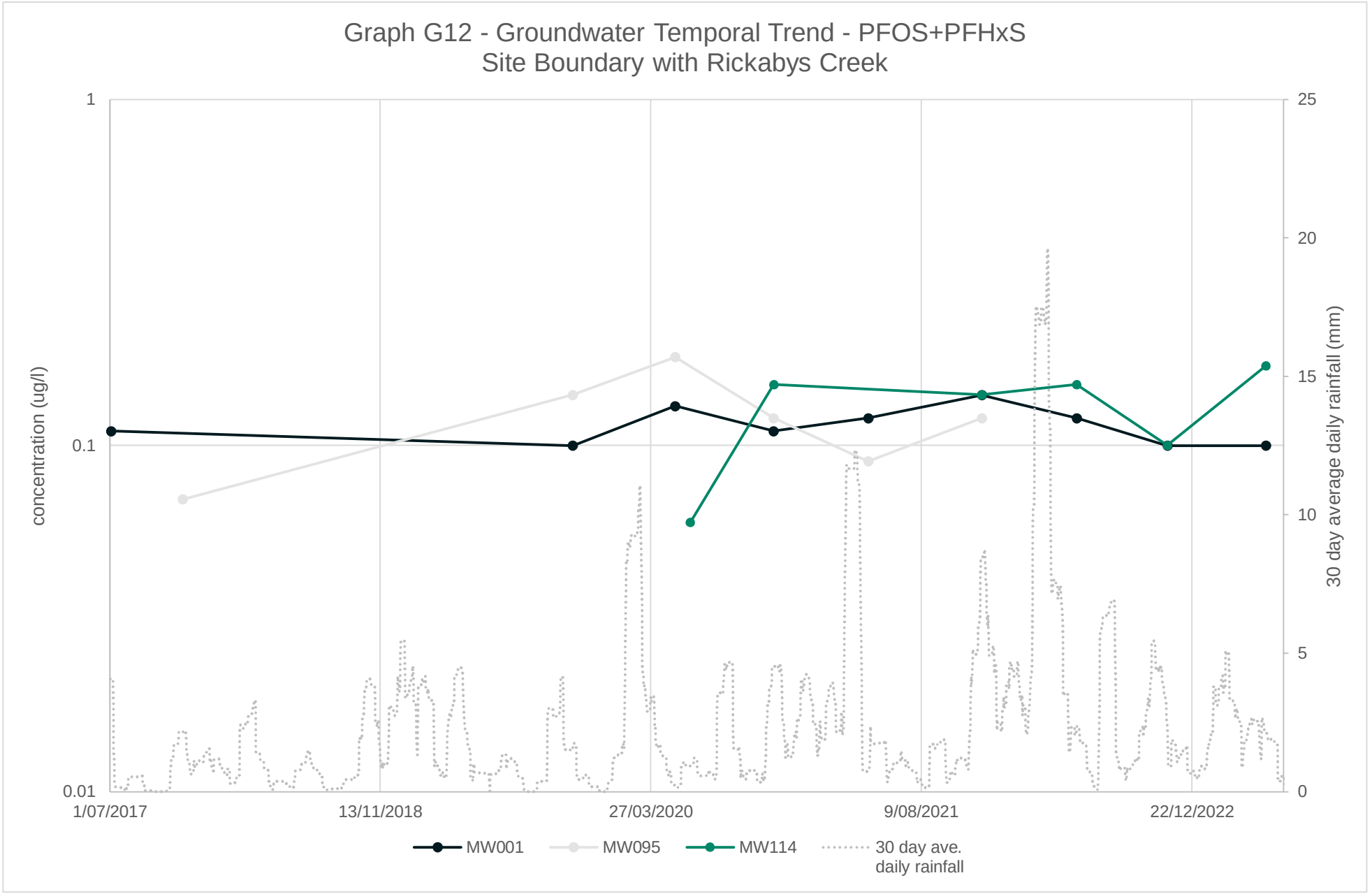

Graph G7 - Groundwater Temporal Trend - PFOS+PFHxS
Fire Station and Hangar 54
concentration (ug/l)
100
10
1
0.1
0.01
30 day average daily rainfall (mm)
25
20
15
10
5
0
1/07/2017
13/11/2018
27/03/2020
9/08/2021
22/12/2022
MW024
MW025
MW028
MW062
MW063
30 day ave. daily rainfall

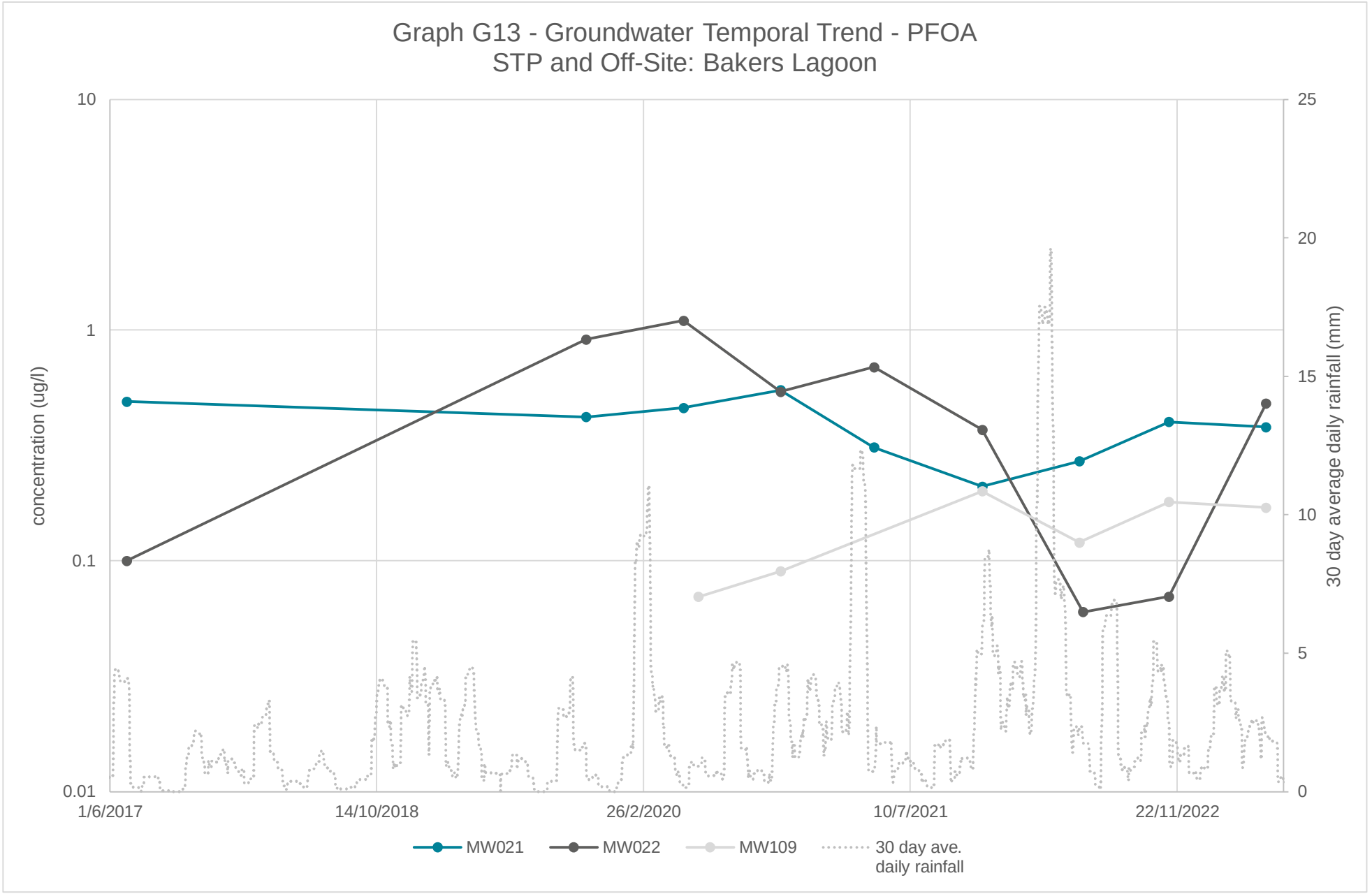

Graph G8 - Groundwater Temporal Trend - PFOA
Eastern Airfield Boundary
concentration (ug/l)
100
10
1
0.1
0.01
30 day average daily rainfall (mm)
25
20
15
10
5
0
1/6/2017
14/10/2018
26/2/2020
10/7/2021
22/11/2022
MW047
MW050
MW051
MW052
30 day ave. daily rainfall

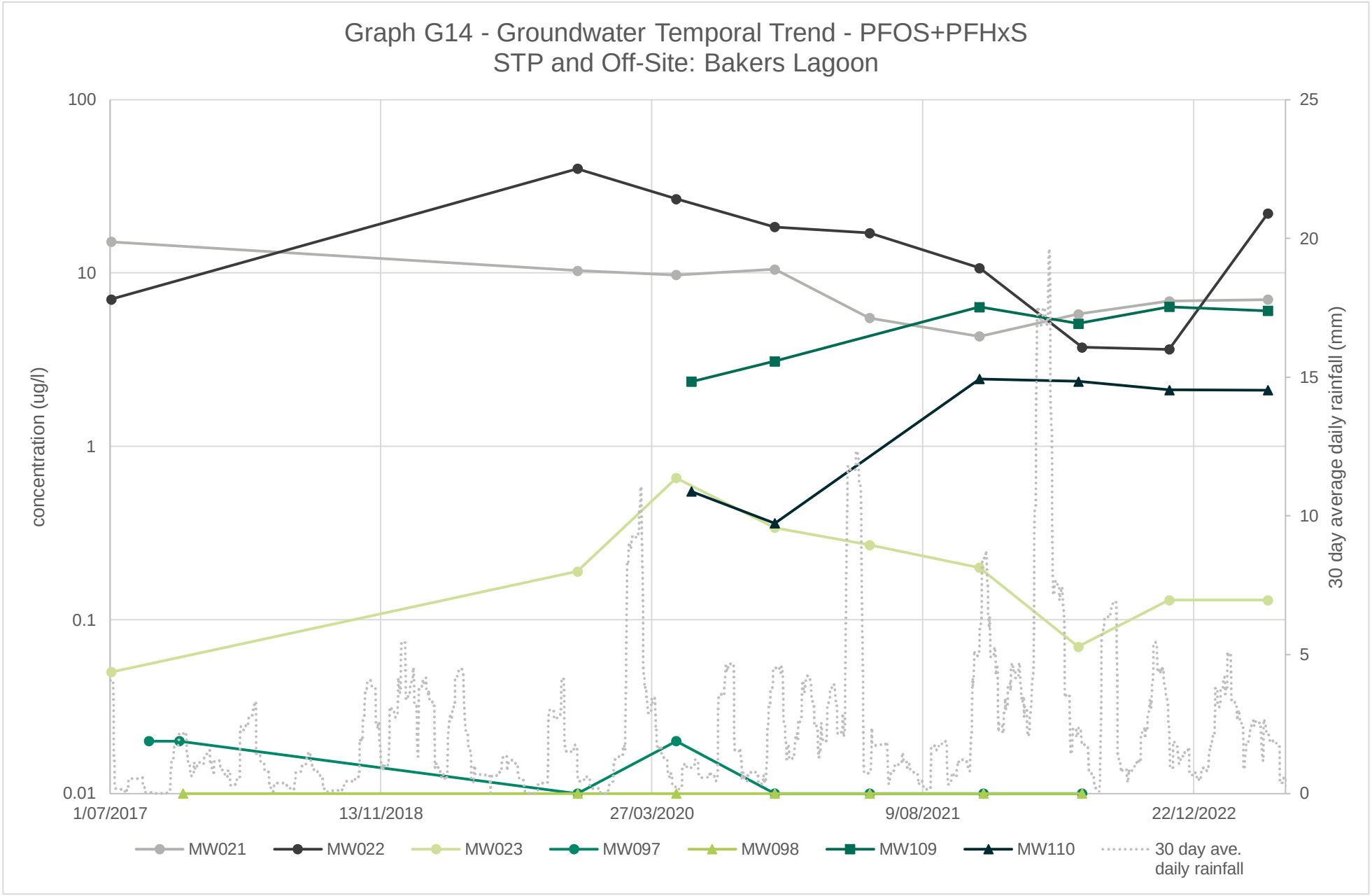

Graph G9 - Groundwater Temporal Trend - PFOS+PFHxS
Eastern Airfield Boundary
concentration (ug/l)
10000
1000
100
10
1
30 day average daily rainfall (mm)
25
20
15
10
5
0
1/07/2017
13/11/2018
27/03/2020
9/08/2021
22/12/2022
MW047
MW050
MW051
MW052
30 day ave. daily rainfall

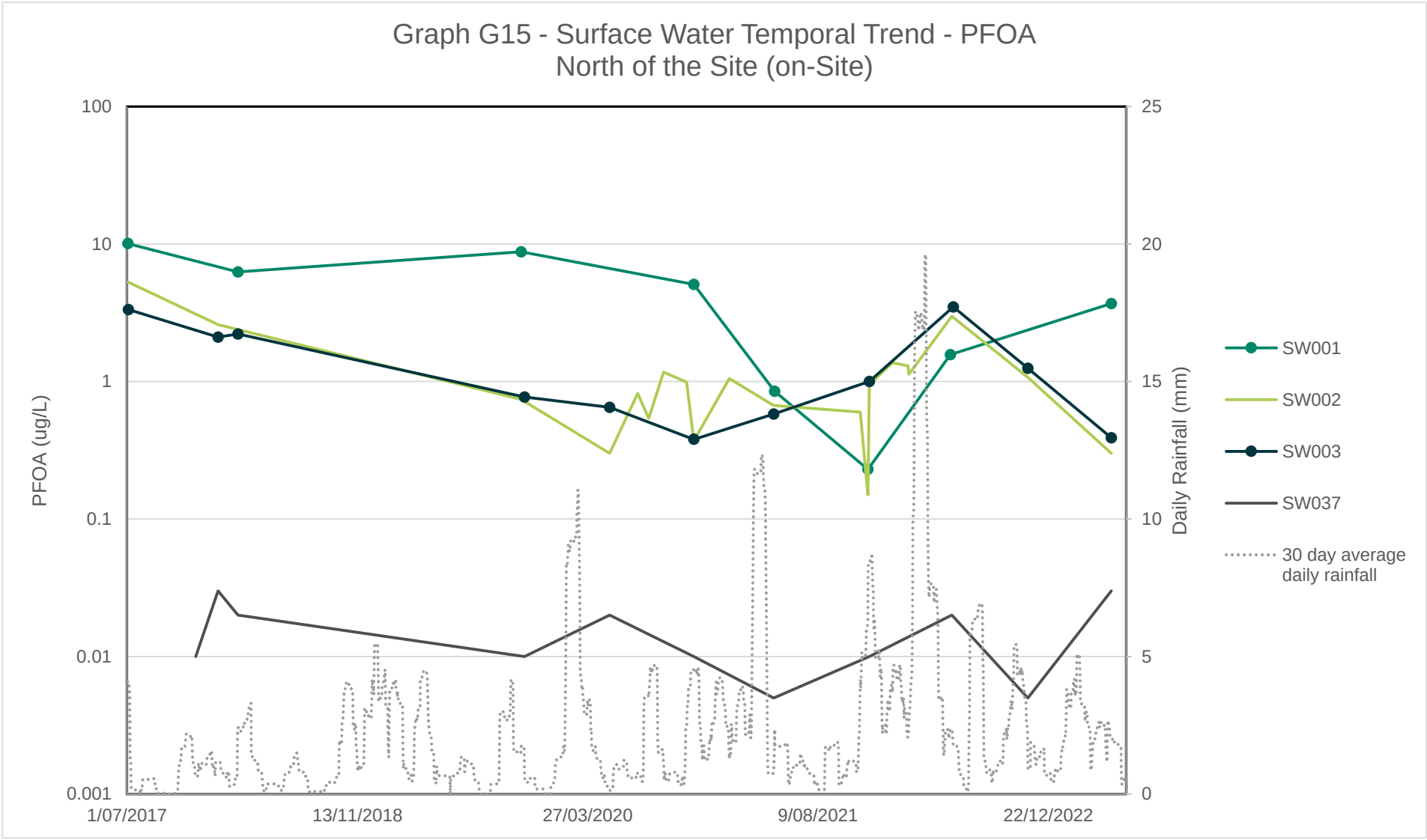

Graph G10 - Groundwater Temporal Trend - PFOA
Northern Site Boundary, adjacent FTF + AFCTA
concentration (ug/l)
100
10
1
0.1
0.01
30 day average daily rainfall (mm)
25
20
15
10
5
0
1/6/2017
14/10/2018
26/2/2020
10/7/2021
22/11/2022
MW030
MW053
MW057
MW058
MW107D
MW107I
30 day ave. daily rainfall

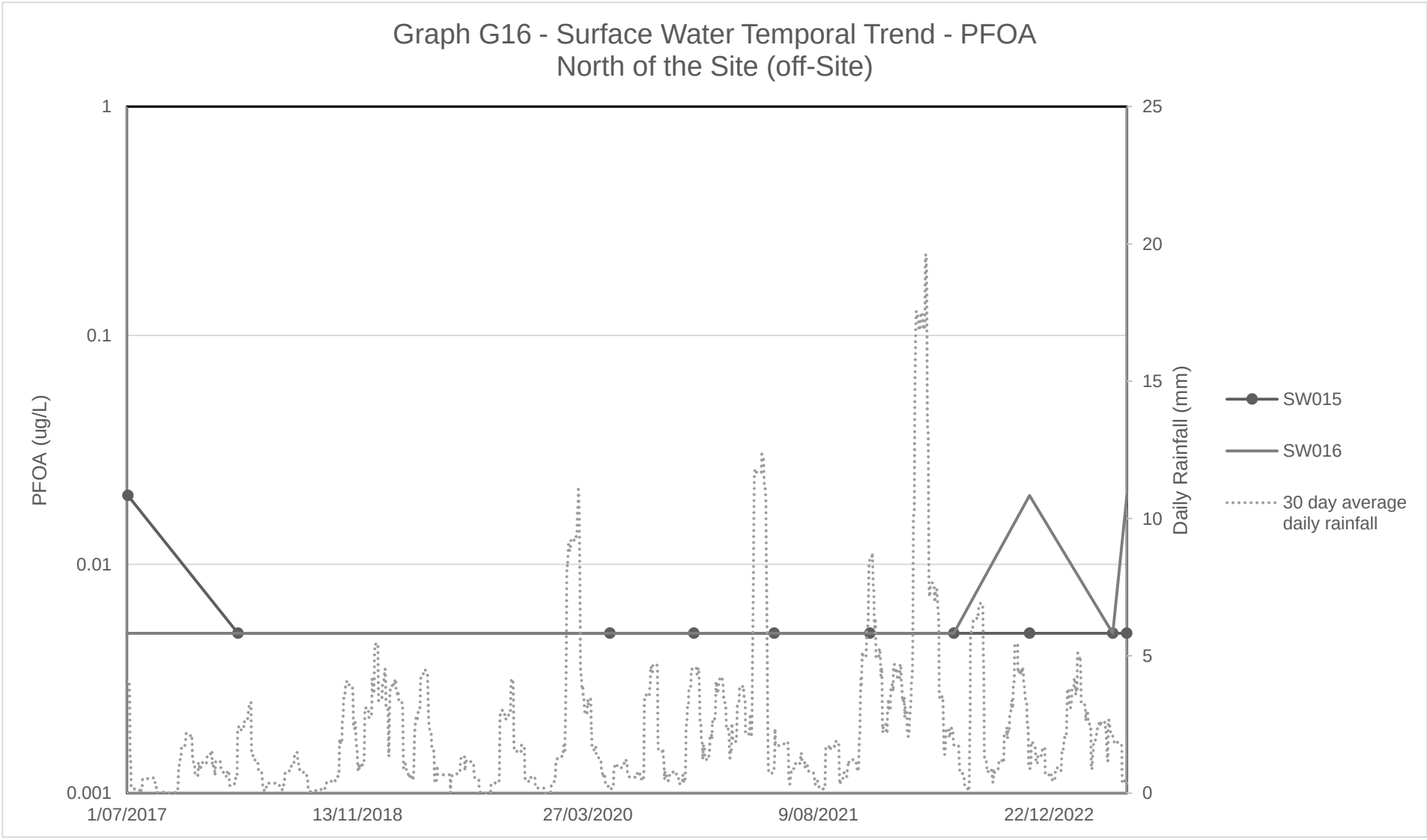

Graph G11 - Groundwater Temporal Trend - PFOS+PFHxS
Northern Site Boundary, adjacent FTF + AFCTA
concentration (ug/l)
10000
1000
100
10
1
0.1
0.01
30 day average daily rainfall (mm)
25
20
15
10
5
0
1/07/2017
13/11/2018
27/03/2020
9/08/2021
22/12/2022
MW030
MW053
MW054
MW057
MW058
MW107D
MW107I
MW108
30 day ave. daily rainfall


Graph G12 - Groundwater Temporal Trend - PFOS+PFHxS
Site Boundary with Rickabys Creek
concentration (ug/l)
1
0.1
0.01
30 day average daily rainfall (mm)
25
20
15
10
5
0
1/07/2017
13/11/2018
27/03/2020
9/08/2021
22/12/2022
MW001
MW095
MW114
30 day ave. daily rainfall

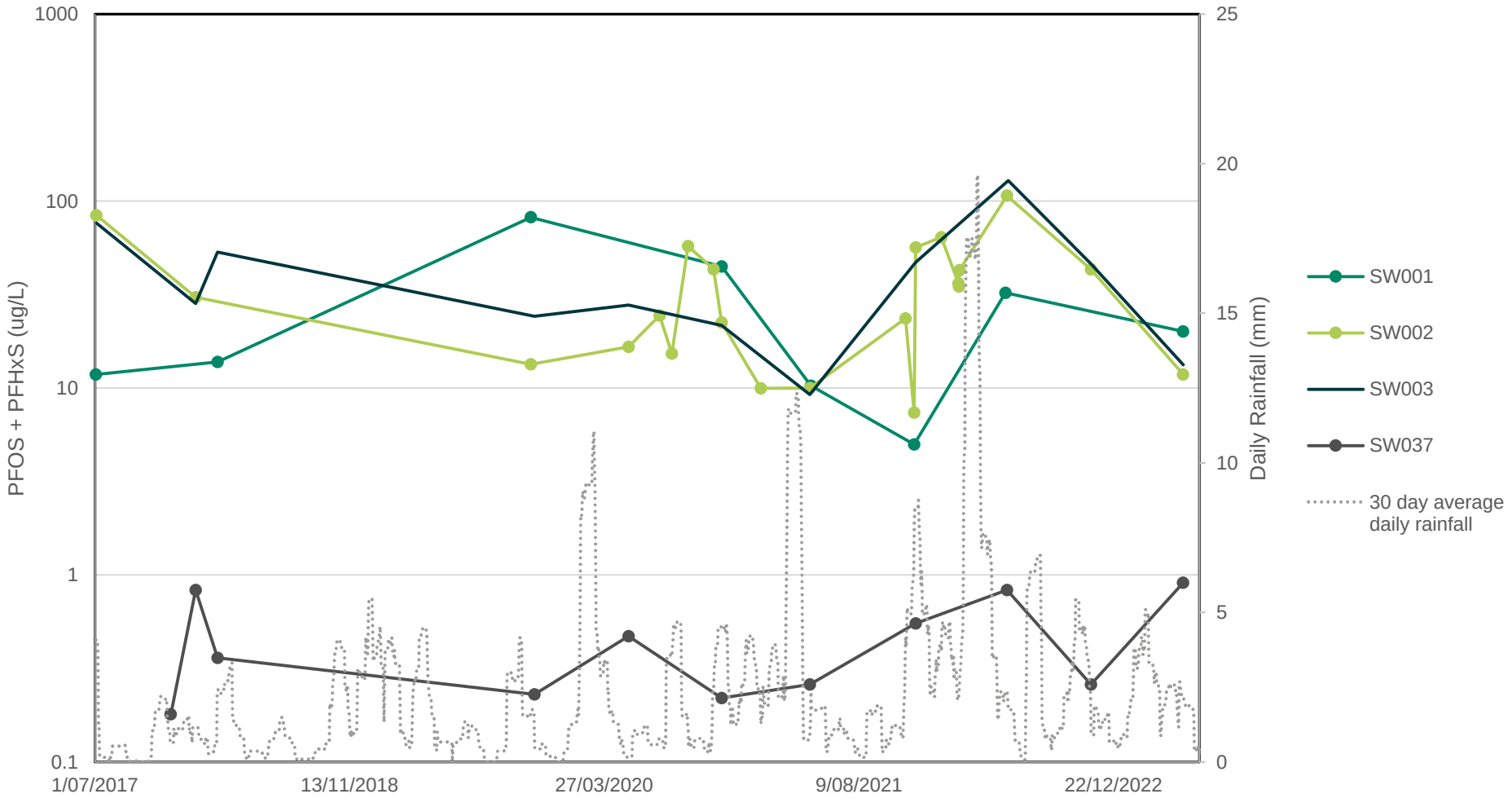

Graph G13 - Groundwater Temporal Trend - PFOA
STP and Off-Site: Bakers Lagoon
concentration (ug/l)
10
1
0.1
0.01
30 day average daily rainfall (mm)
25
20
15
10
5
0
1/6/2017
14/10/2018
26/2/2020
10/7/2021
22/11/2022
MW021
MW022
MW109
30 day ave. daily rainfall


Graph G14 - Groundwater Temporal Trend - PFOS+PFHxS
STP and Off-Site: Bakers Lagoon
concentration (ug/l)
100
10
1
0.1
0.01
30 day average daily rainfall (mm)
25
20
15
10
5
0
1/07/2017
13/11/2018
27/03/2020
9/08/2021
22/12/2022
MW021
MW022
MW023
MW097
MW098
MW109
MW110
30 day ave. daily rainfall

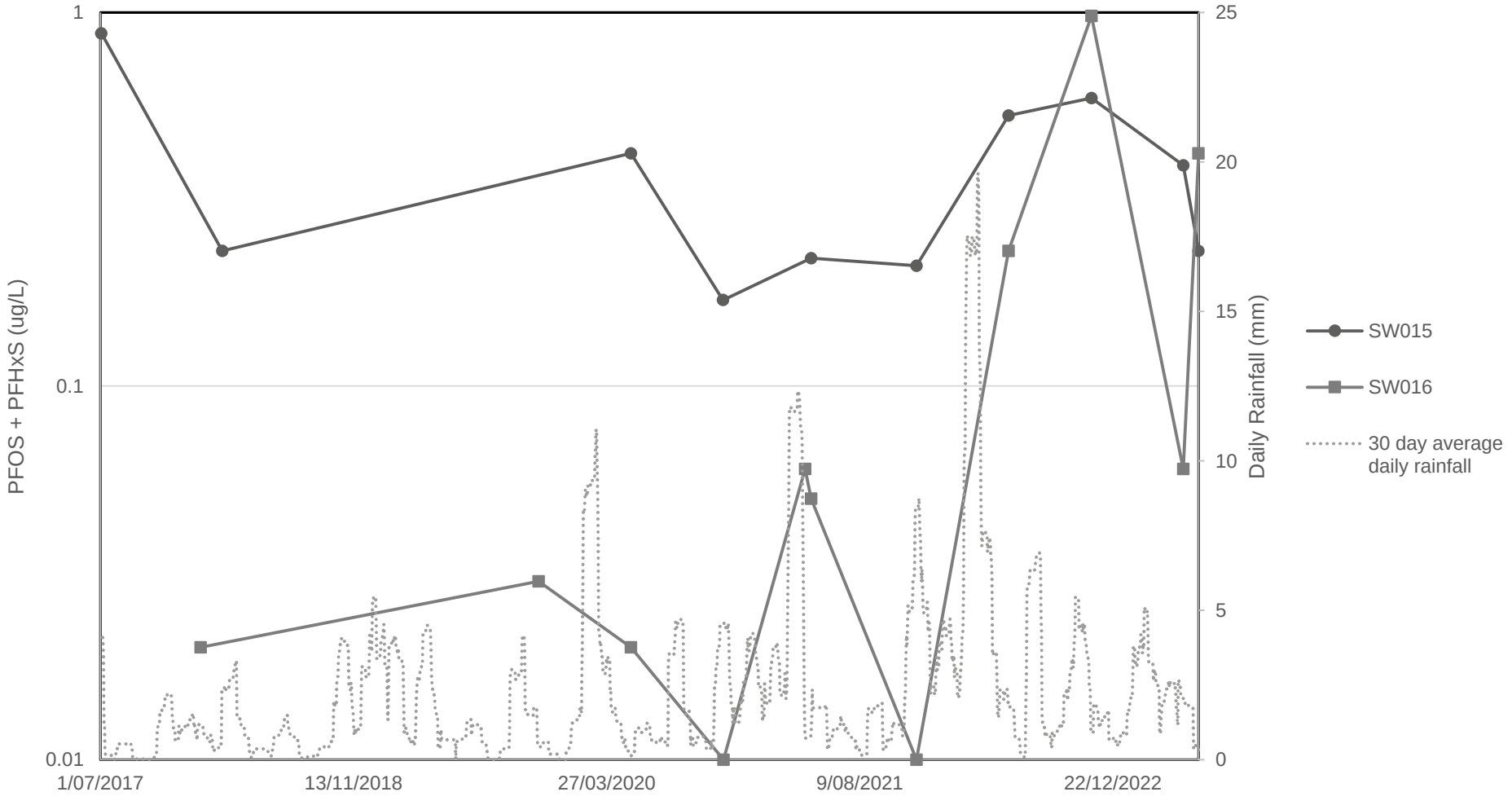

Graph G15 - Surface Water Temporal Trend - PFOA
North of the Site (on-Site)
PFOA (ug/L)
100
10
1
0.1
0.01
0.001
Daily Rainfall (mm)
25
20
15
10
5
0
1/07/2017
13/11/2018
27/03/2020
9/08/2021
22/12/2022
SW001
SW002
SW003
SW037
30 day average daily rainfall


Graph G16 - Surface Water Temporal Trend - PFOA
North of the Site (off-Site)
PFOA (ug/L)
1
0.1
0.01
0.001
Daily Rainfall (mm)
25
20
15
10
5
0
1/07/2017
13/11/2018
27/03/2020
9/08/2021
22/12/2022
SW015
SW016
30 day average daily rainfall

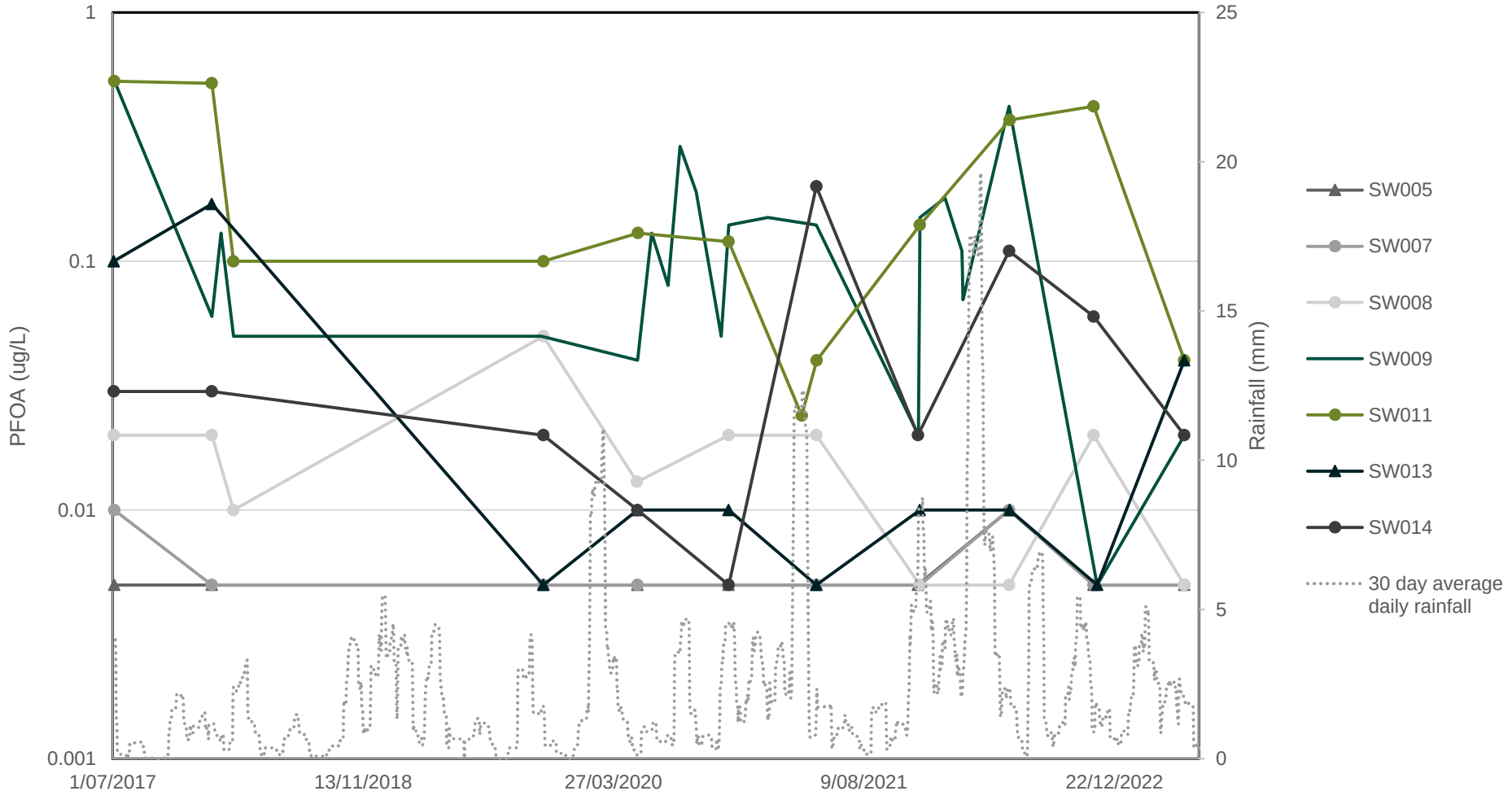
Graph G17 - Surface Water Temporal Trend - PFOS + PFHxS
North of the Site (on-Site)

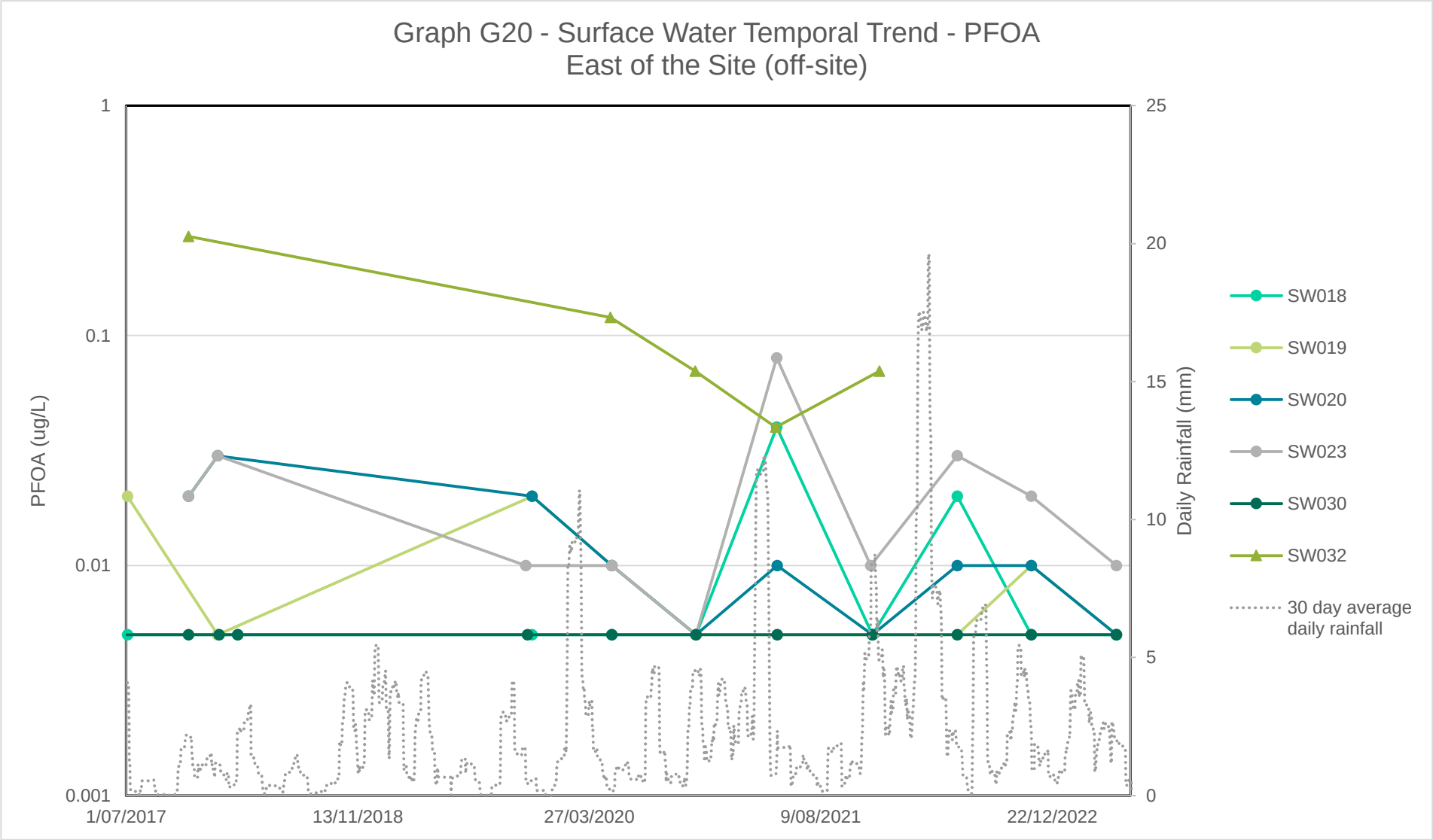


Graph G18 - Surface Water Temporal Figure - PFOS + PFHxS
North of the Site (off-Site)

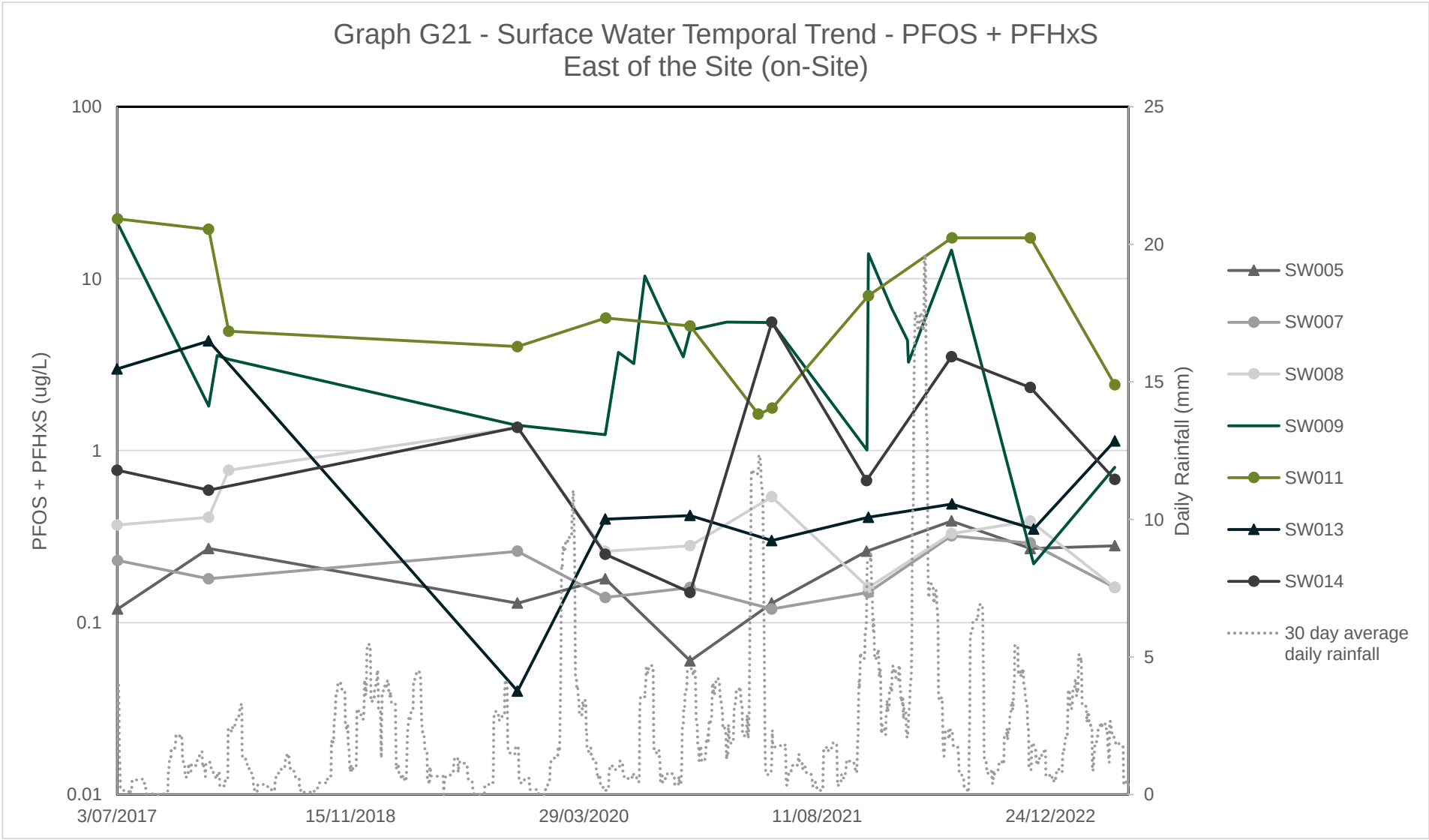


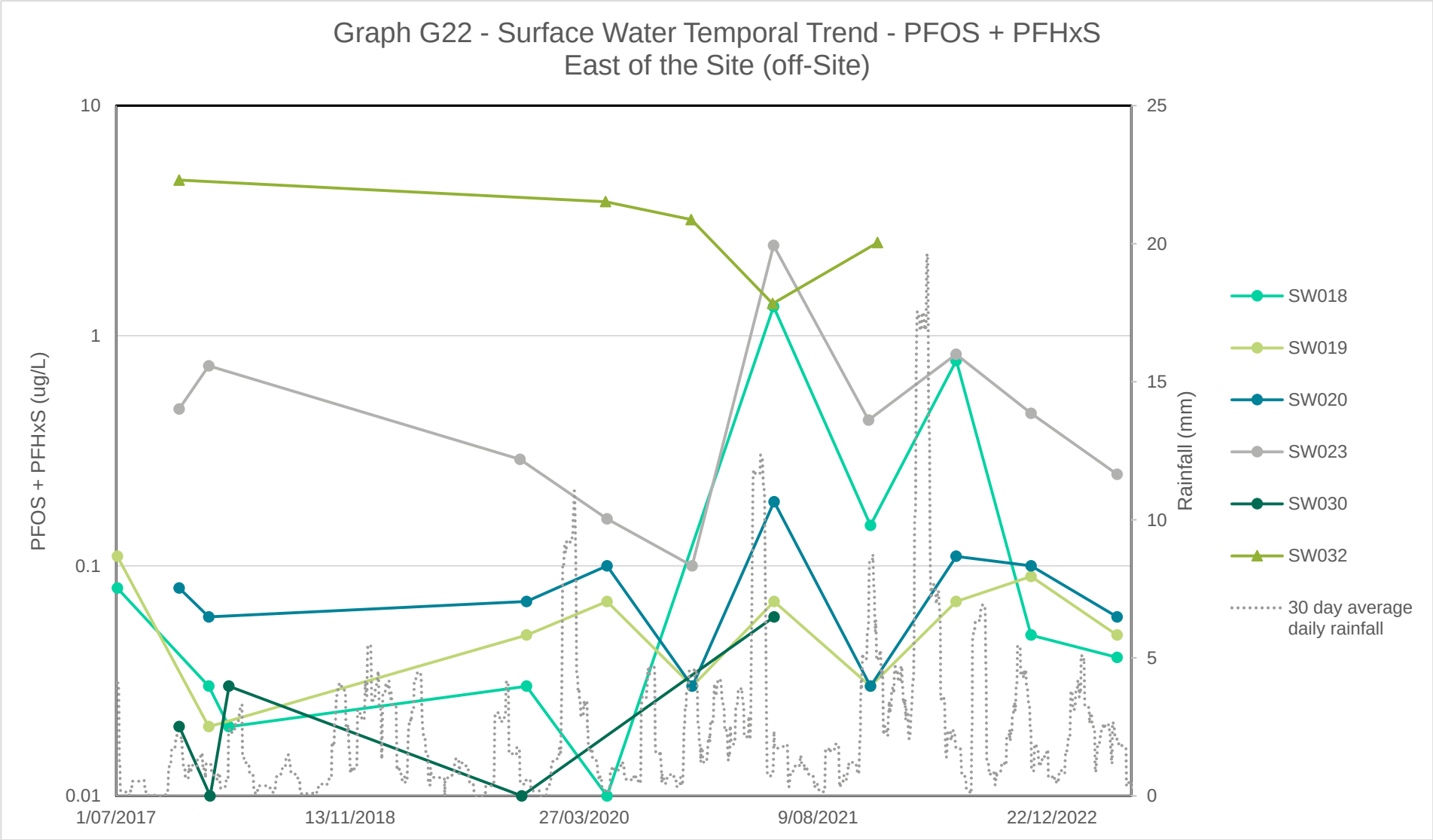
Graph G19 - Surface Water Temporal Trend - PFOA
East of the Site (on-site)

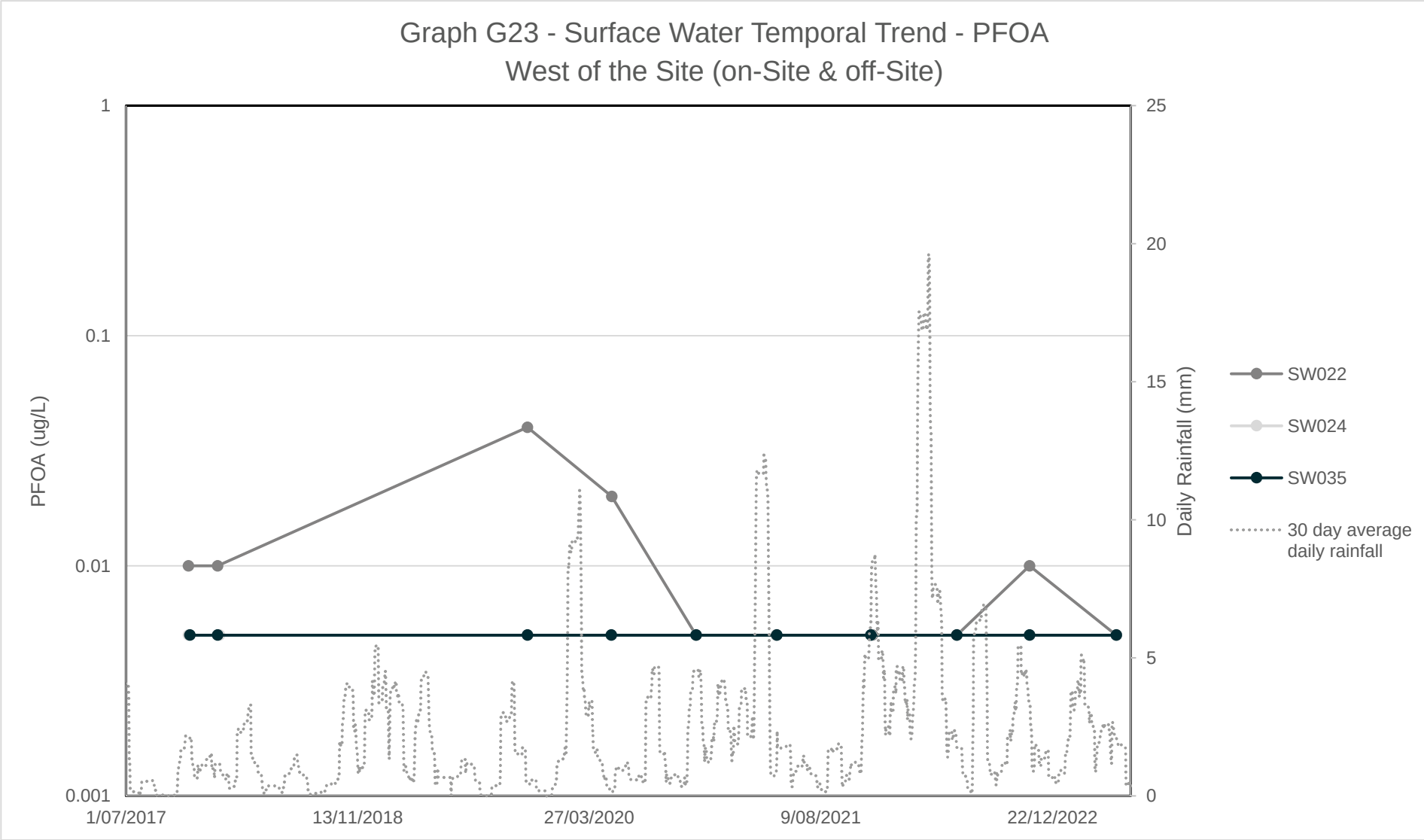



Graph G20 - Surface Water Temporal Trend - PFOA
East of the Site (off-site)
PFOA (ug/L)
1
0.1
0.01
0.001
Daily Rainfall (mm)
25
20
15
10
5
0
1/07/2017
13/11/2018
27/03/2020
9/08/2021
22/12/2022
SW018
SW019
SW020
SW023
SW030
SW032
30 day average daily rainfall

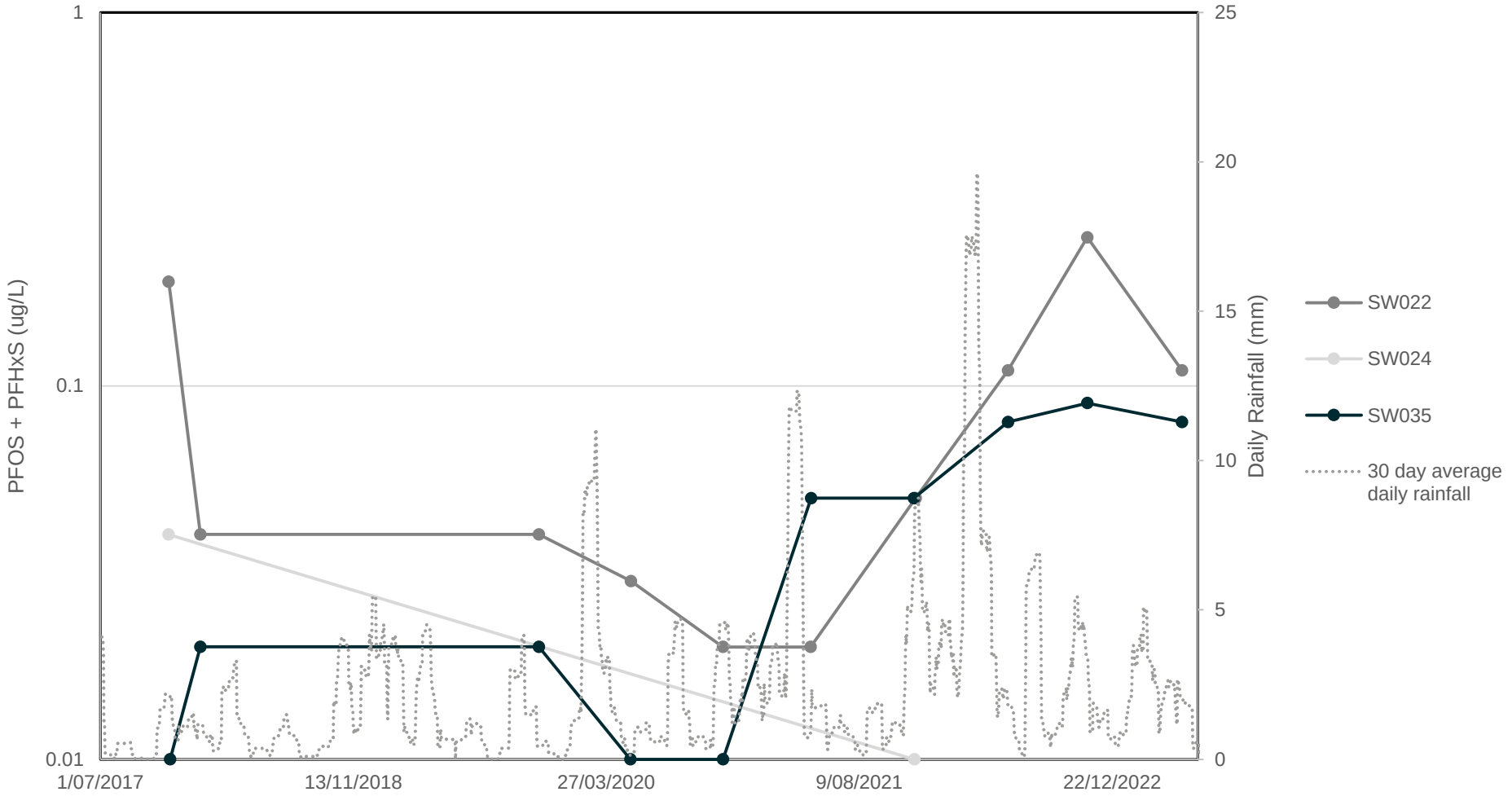
Graph G21 - Surface Water Temporal Trend - PFOS + PFHxS
East of the Site (on-Site)

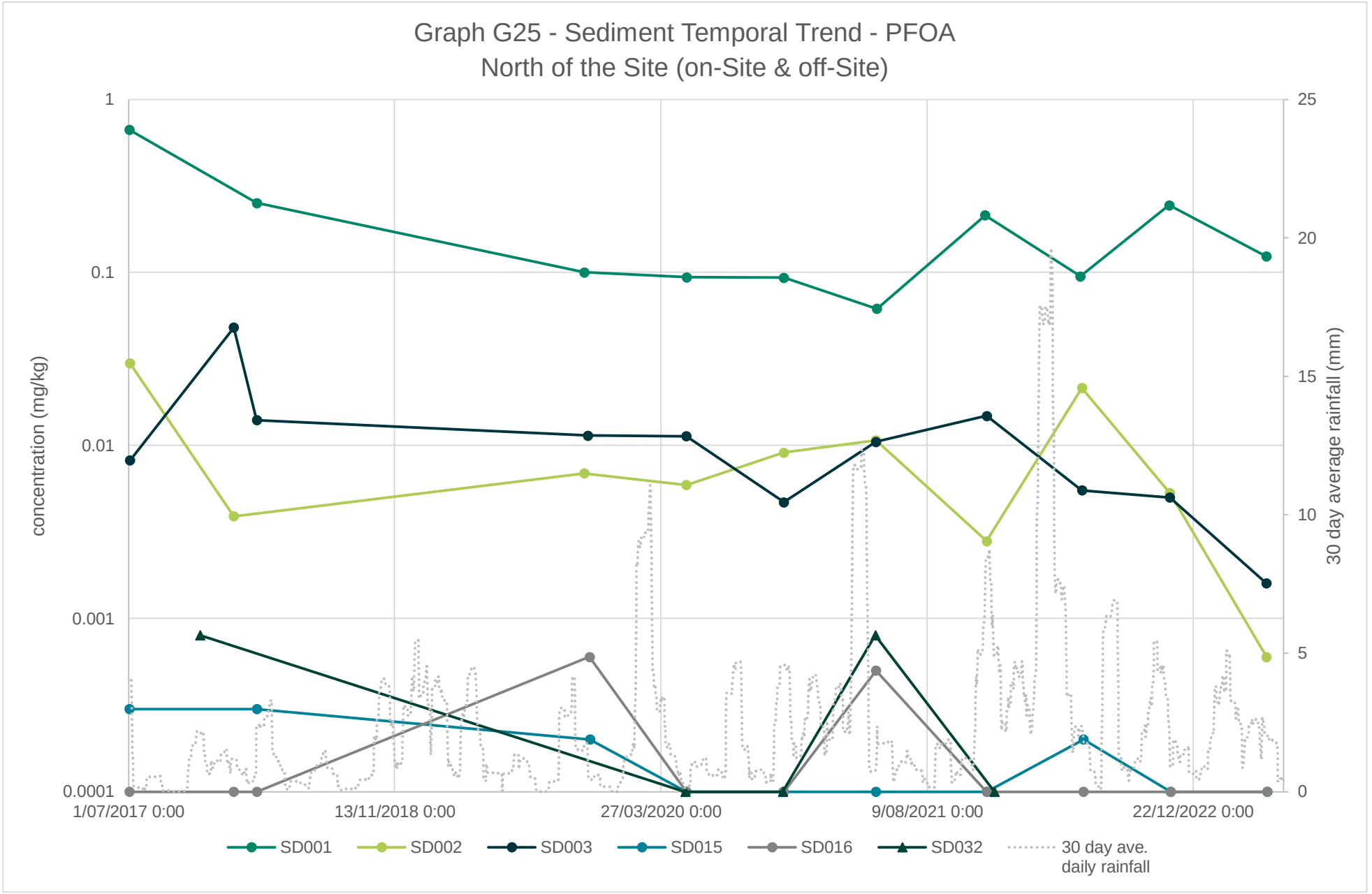


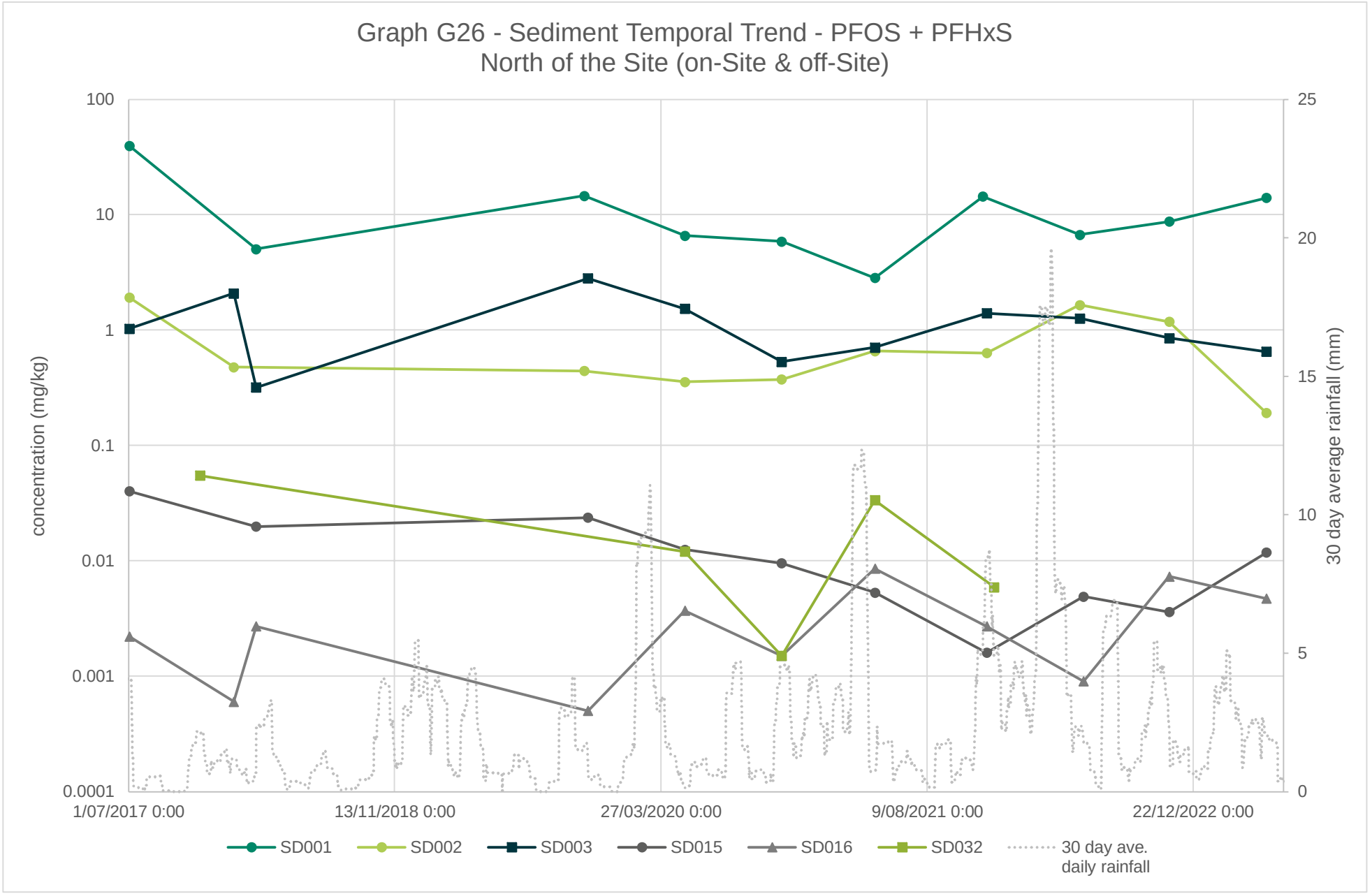

Graph G22 - Surface Water Temporal Trend - PFOS + PFHxS
East of the Site (off-Site)
PFOS + PFHxS (ug/L)
10
1
0.1
0.01
Rainfall (mm)
25
20
15
10
5
0
1/07/2017
13/11/2018
27/03/2020
9/08/2021
22/12/2022
SW018
SW019
SW020
SW023
SW030
SW032
30 day average daily rainfall

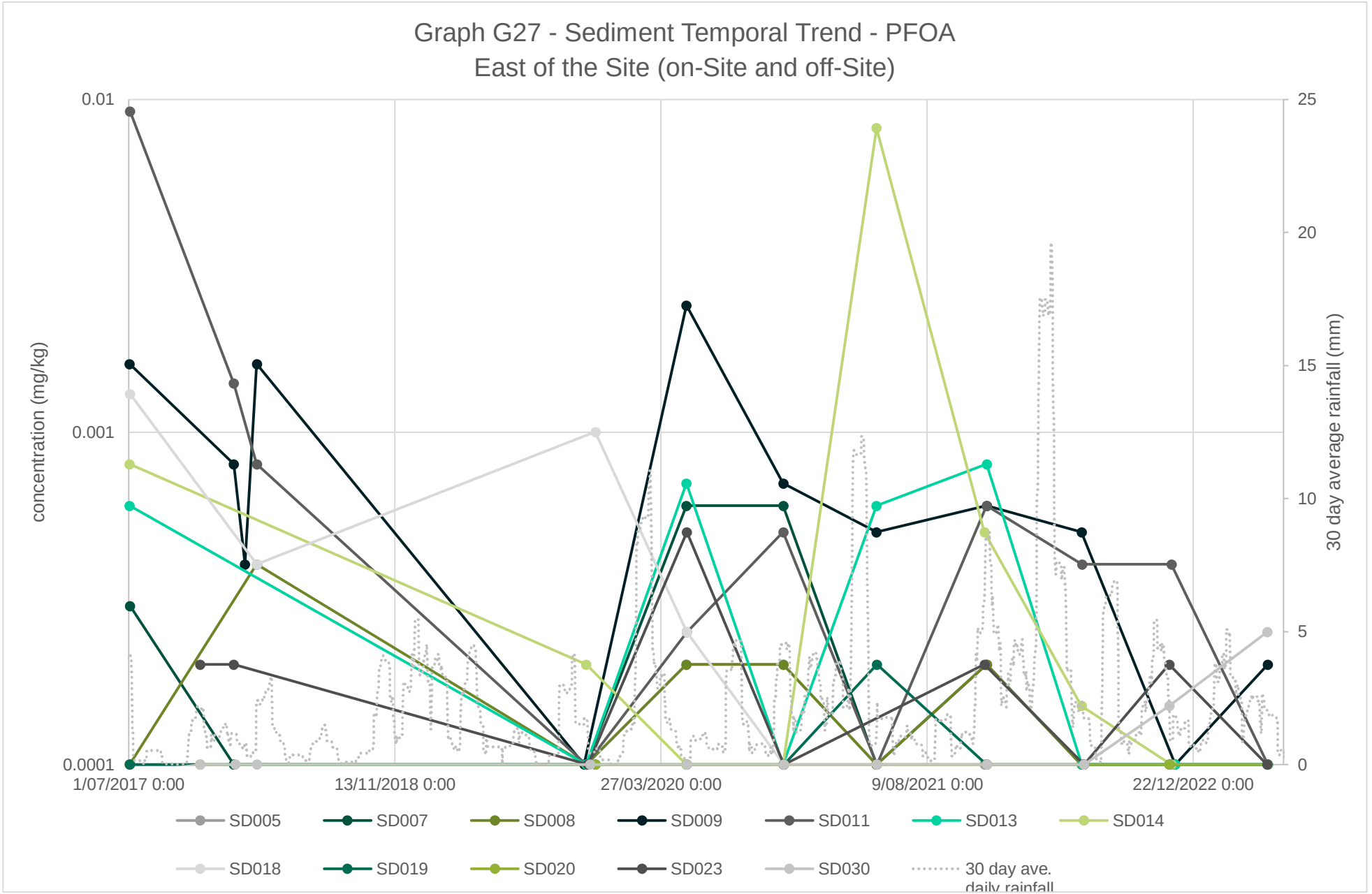

Graph G23 - Surface Water Temporal Trend - PFOA
West of the Site (on-Site & off-Site)
PFOA (ug/L)
1
0.1
0.01
0.001
Daily Rainfall (mm)
25
20
15
10
5
0
1/07/2017
13/11/2018
27/03/2020
9/08/2021
22/12/2022
SW022
SW024
SW035
30 day average daily rainfall

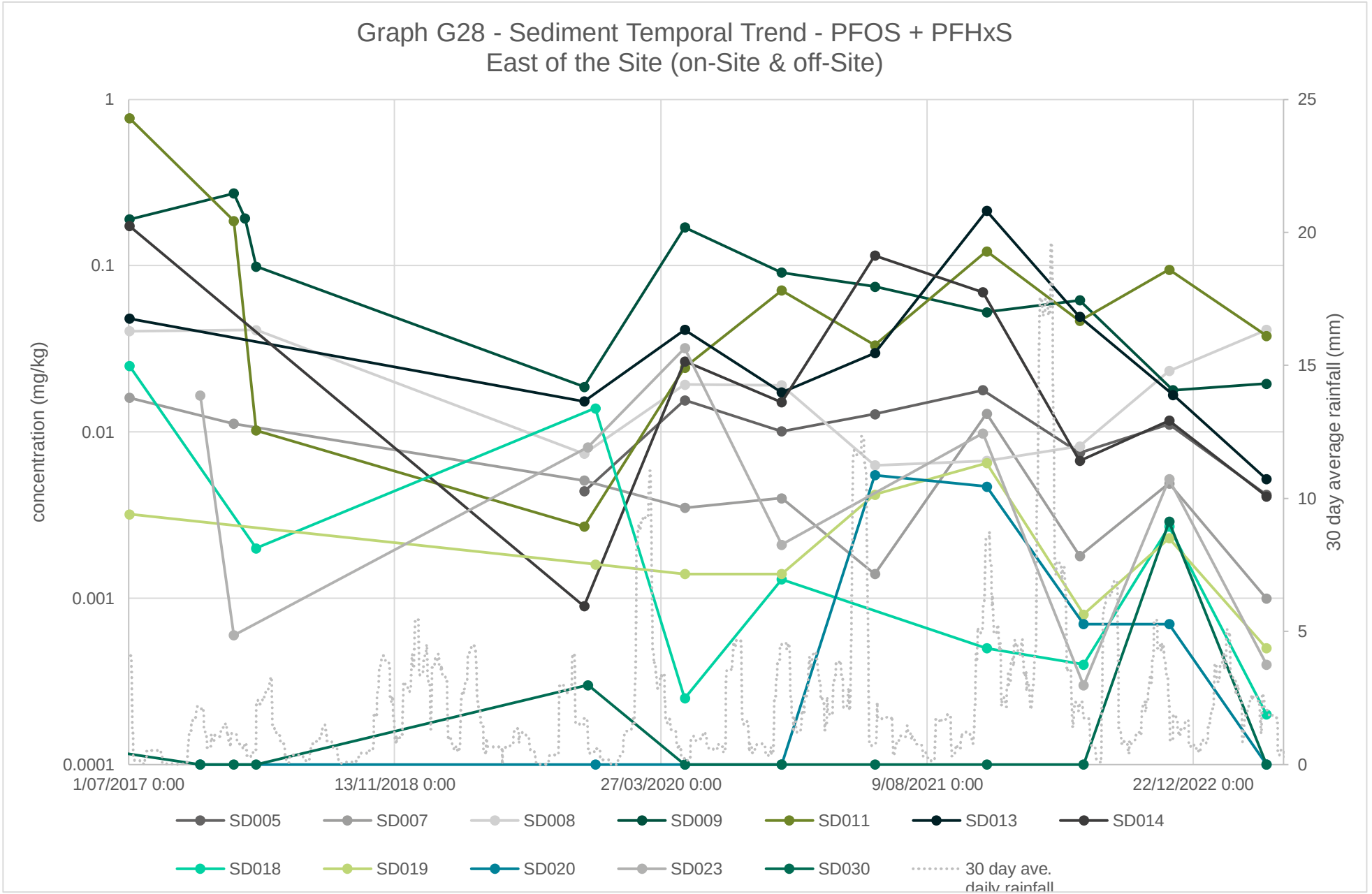
Graph G24 - Surface Water Temporal Trend - PFOS + PFHxS
West of the Site (on-Site & off-Site)

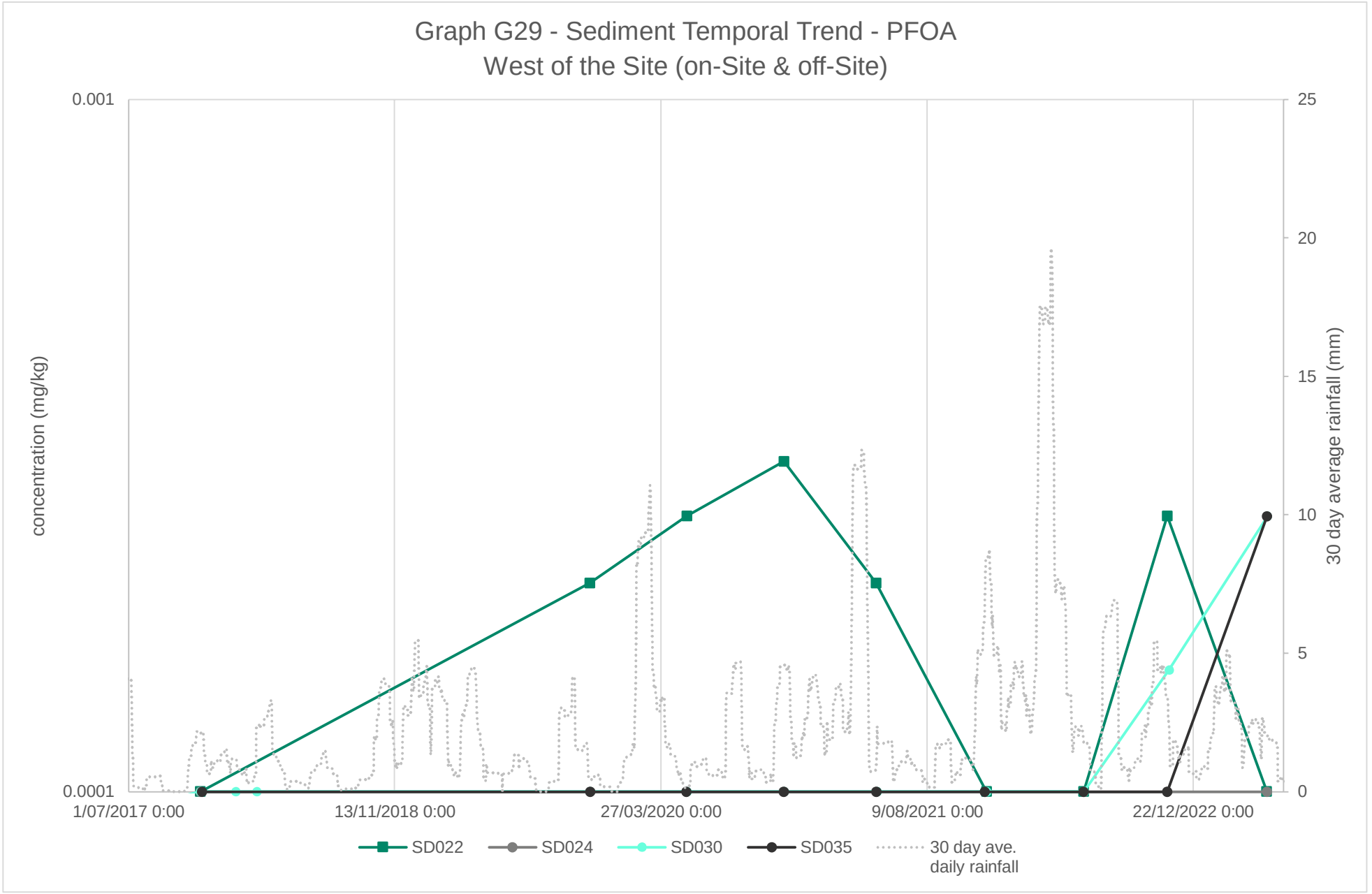


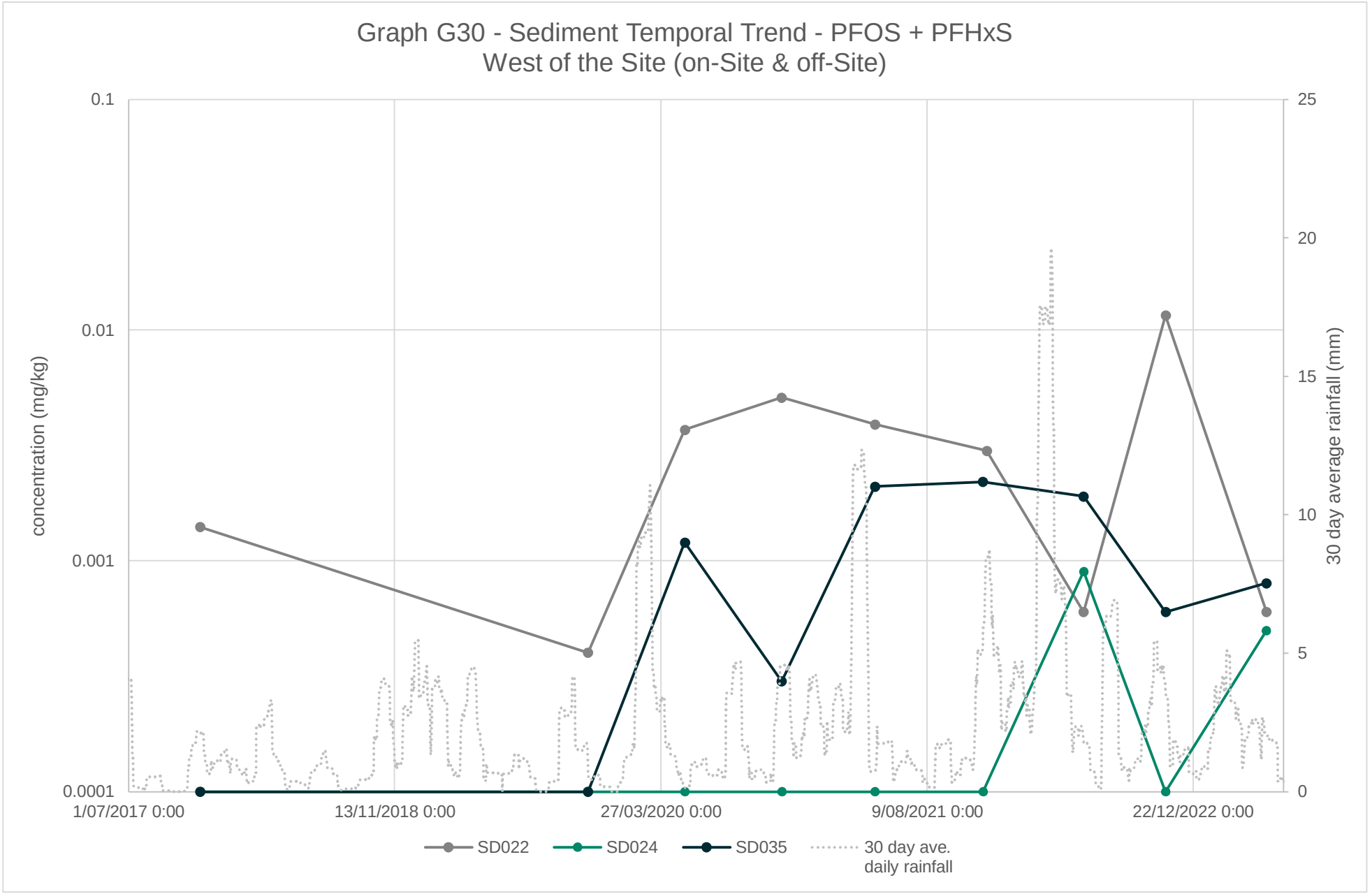

Graph G25 - Sediment Temporal Trend - PFOA
North of the Site (on-Site & off-Site)
concentration (mg/kg)
30 day average rainfall (mm)
1
0.1
0.01
0.001
0.0001
25
20
15
10
5
0
1/07/2017 0:00
13/11/2018 0:00
27/03/2020 0:00
9/08/2021 0:00
22/12/2022 0:00
SD001
SD002
SD003
SD015
SD016
SD032
30 day ave. daily rainfall


Graph G26 - Sediment Temporal Trend - PFOS + PFHxS
North of the Site (on-Site & off-Site)
concentration (mg/kg)
100
10
1
0.1
0.01
0.001
0.0001
30 day average rainfall (mm)
25
20
15
10
5
0
1/07/2017 0:00
13/11/2018 0:00
27/03/2020 0:00
9/08/2021 0:00
22/12/2022 0:00
SD001
SD002
SD003
SD015
SD016
SD032
30 day ave. daily rainfall


Graph G27 - Sediment Temporal Trend - PFOA
East of the Site (on-Site and off-Site)
concentration (mg/kg)
0.01
0.001
0.0001
30 day average rainfall (mm)
25
20
15
10
5
0
1/07/2017 0:00
13/11/2018 0:00
27/03/2020 0:00
9/08/2021 0:00
22/12/2022 0:00
SD005
SD007
SD008
SD009
SD011
SD013
SD014
SD018
SD019
SD020
SD023
SD030
30 day ave. daily rainfall


Graph G28 - Sediment Temporal Trend - PFOS + PFHxS
East of the Site (on-Site & off-Site)
concentration (mg/kg)
30 day average rainfall (mm)
1
0.1
0.01
0.001
0.0001
25
20
15
10
5
0
1/07/2017 0:00
13/11/2018 0:00
27/03/2020 0:00
9/08/2021 0:00
22/12/2022 0:00
SD005
SD007
SD008
SD009
SD011
SD013
SD014
SD018
SD019
SD020
SD023
SD030
30 day ave. daily rainfall


Graph G29 - Sediment Temporal Trend - PFOA
West of the Site (on-Site & off-Site)
0.001
0.0001
concentration (mg/kg)
25
20
15
10
5
0
30 day average rainfall (mm)
1/07/2017 0:00
13/11/2018 0:00
27/03/2020 0:00
9/08/2021 0:00
22/12/2022 0:00
SD022
SD024
SD030
SD035
30 day ave. daily rainfall


Graph G30 - Sediment Temporal Trend - PFOS + PFHxS
West of the Site (on-Site & off-Site)
0.1
0.01
0.001
0.0001
concentration (mg/kg)
25
20
15
10
5
0
30 day average rainfall (mm)
1/07/2017 0:00
13/11/2018 0:00
27/03/2020 0:00
9/08/2021 0:00
22/12/2022 0:00
SD022
SD024
SD035
30 day ave. daily rainfall

Appendix E

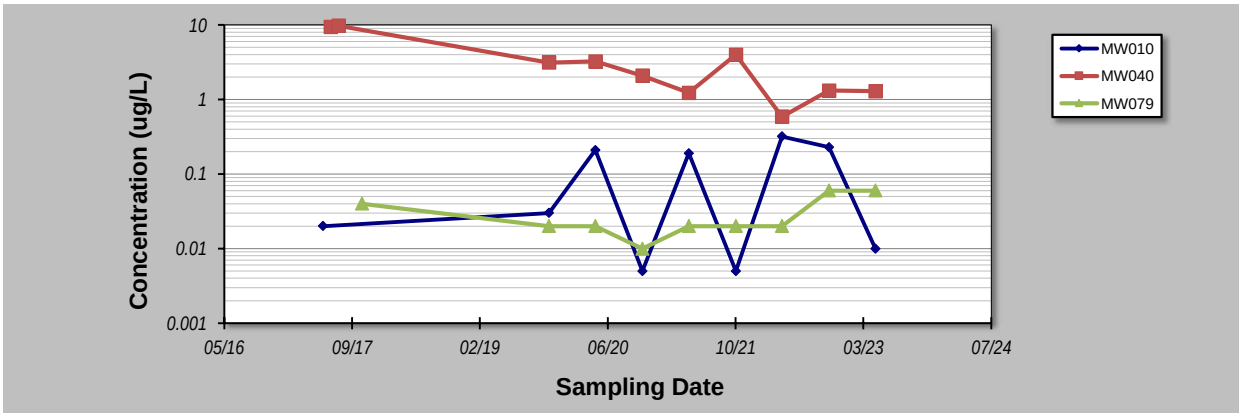
Mann-Kendall Analysis

AECOM

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	7-Jul-23	Job ID:	60612562
Facility Name:	FFTG, Area South of FFTG, western airfield	Constituent:	PFOA
Conducted By:	JR	Concentration Units:	ug/L

Sampling Point ID:	MW010	MW040	MW079				
Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)						
1	Jun-17	0.02						
2	Jul-17		9.46					
3	Aug-17		9.8					
4	Nov-17			0.04				
5	Nov-19	0.03	3.13	0.02				
6	May-20	0.21	3.24	0.02				
7	Nov-20	0.005	2.09	0.01				
8	May-21	0.19	1.23	0.02				
9	Nov-21	0.005	3.98	0.02				
10	May-22	0.32	0.59	0.02				
11	Nov-22	0.23	1.32	0.06				
12	May-23	0.01	1.29	0.06				
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.09	0.93	0.62				
Mann-Kendall Statistic (S):		5	-25	9				
Confidence Factor:		65.7%	98.6%	79.2%				
Concentration Trend:		No Trend	Decreasing	No Trend				



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

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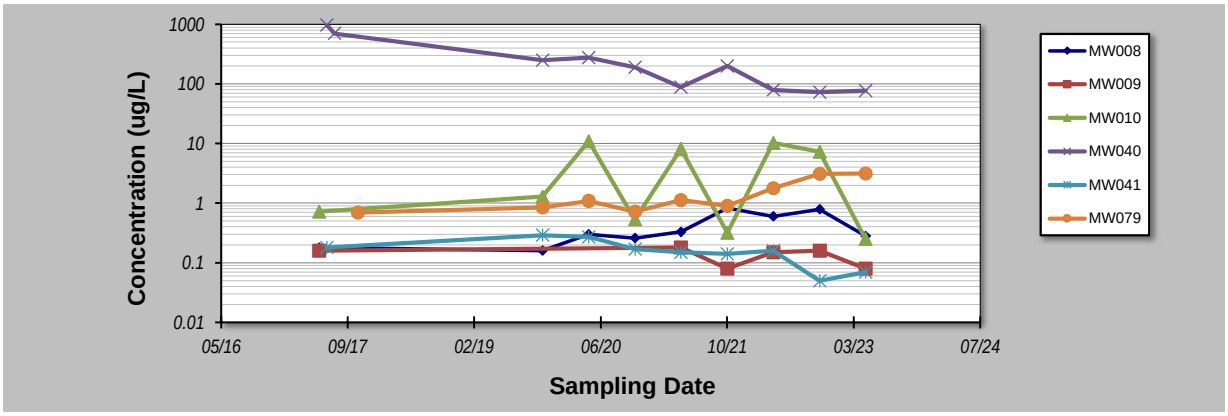
AECOM

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	7-Jul-23	Job ID:	60612562
Facility Name:	FFTG, Area South of FFTG, western airfield	Constituent:	Sum of PFHxS and PFOS
Conducted By:	JR	Concentration Units:	ug/L

Sampling Point ID:	MW008	MW009	MW010	MW040	MW041	MW079
Sampling Event	Sampling Date	SUM OF PFHXS AND PFOS CONCENTRATION (ug/L)					
1	Jun-17	0.18	0.16	0.72			
2	Jul-17				969	0.18	
3	Aug-17				702		
4	Nov-17						0.69
5	Nov-19	0.16		1.29	249	0.29	0.84
6	May-20	0.3		11	273	0.27	1.09
7	Nov-20	0.26		0.53	190	0.17	0.72
8	May-21	0.33	0.18	8.14	88	0.15	1.13
9	Nov-21	0.83	0.08	0.32	199	0.14	0.9
10	May-22	0.6	0.15	10.3	79.6	0.16	1.77
11	Nov-22	0.79	0.16	7.21	72.5	0.05	3.08
12	May-23	0.28	0.08	0.25	76.7	0.07	3.14
13							
14							
15							
16							
17							
18							
19							
20							
Coefficient of Variation:		0.62	0.32	1.05	1.05	0.48	0.66
Mann-Kendall Statistic (S):		18	-5	-6	-37	-26	28
Confidence Factor:		96.2%	76.5%	69.4%	>99.9%	99.7%	99.9%
Concentration Trend:		Increasing	Stable	No Trend	Decreasing	Decreasing	Increasing



Notes:

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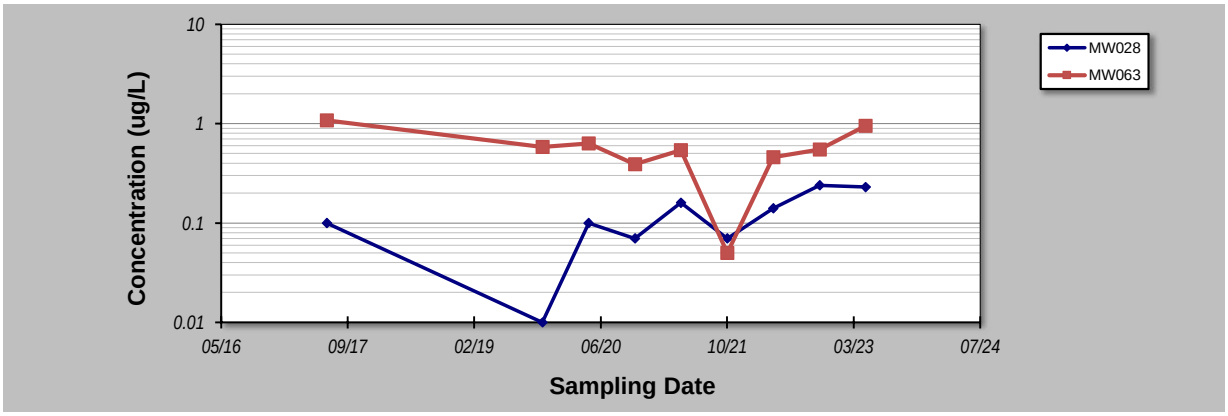
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	7-Jul-23	Job ID:	60612562
Facility Name:	Fire Station and Hanger 54	Constituent:	PFOA
Conducted By:	JR	Concentration Units:	ug/L

Sampling Point ID:	MW028	MW063					
Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)						
1	Jul-17	0.1	1.08					
2	Nov-19	0.01	0.58					
3	May-20	0.1	0.63					
4	Nov-20	0.07	0.39					
5	May-21	0.16	0.54					
6	Nov-21	0.07	0.05					
7	May-22	0.14	0.46					
8	Nov-22	0.24	0.55					
9	May-23	0.23	0.95					
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.61	0.52					
Mann-Kendall Statistic (S):		18	-6					
Confidence Factor:		96.2%	69.4%					
Concentration Trend:		Increasing	Stable					



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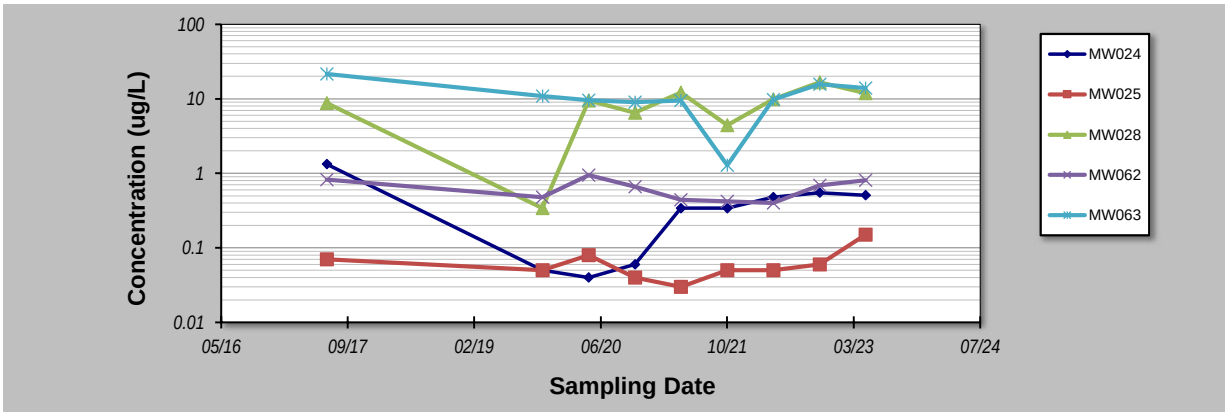
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	7-Jul-23	Job ID:	60612562
Facility Name:	Fire Station and Hanger 54	Constituent:	Sum of PFHxS and PFOS
Conducted By:	JR	Concentration Units:	ug/L

Sampling Point ID:	MW024	MW025	MW028	MW062	MW063		
Sampling Event	Sampling Date	SUM OF PFHXS AND PFOS CONCENTRATION (ug/L)						
1	Jul-17	1.33	0.07	8.73	0.82	21.5		
2	Nov-19	0.05	0.05	0.34	0.48	10.9		
3	May-20	0.04	0.08	9.5	0.95	9.59		
4	Nov-20	0.06	0.04	6.53	0.66	8.99		
5	May-21	0.34	0.03	12.1	0.44	9.5		
6	Nov-21	0.34	0.05	4.43	0.42	1.28		
7	May-22	0.48	0.05	9.82	0.4	9.75		
8	Nov-22	0.55	0.06	16.6	0.69	15.6		
9	May-23	0.51	0.15	11.9	0.81	13.9		
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.97	0.55	0.53	0.32	0.49		
Mann-Kendall Statistic (S):		15	5	16	-8	-2		
Confidence Factor:		92.5%	65.7%	94.0%	76.2%	54.0%		
Concentration Trend:		Prob. Increasing	No Trend	Prob. Increasing	Stable	Stable		



Notes:

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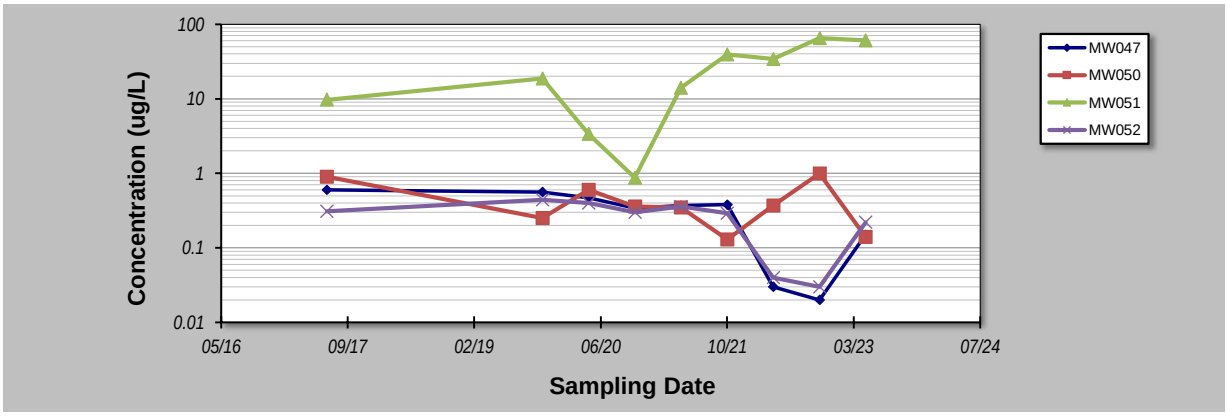
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	7-Jul-23	Job ID:	60612562
Facility Name:	Eastern airfield boundary	Constituent:	PFOA
Conducted By:	JR	Concentration Units:	ug/L

Sampling Point ID:	MW047	MW050	MW051	MW052			
Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)						
1	Jul-17	0.6	0.9	9.69	0.31			
2	Nov-19	0.56	0.25	18.8	0.44			
3	May-20	0.47	0.6	3.37	0.4			
4	Nov-20	0.34	0.36	0.87	0.3			
5	May-21	0.37	0.35	14	0.36			
6	Nov-21	0.38	0.13	39.4	0.29			
7	May-22	0.03	0.37	34.2	0.04			
8	Nov-22	0.02	0.99	65.3	0.03			
9	May-23	0.15	0.14	60.9	0.22			
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.66	0.69	0.88	0.55			
Mann-Kendall Statistic (S):		-26	-6	20	-24			
Confidence Factor:		99.7%	69.4%	97.8%	99.4%			
Concentration Trend:		Decreasing	Stable	Increasing	Decreasing			



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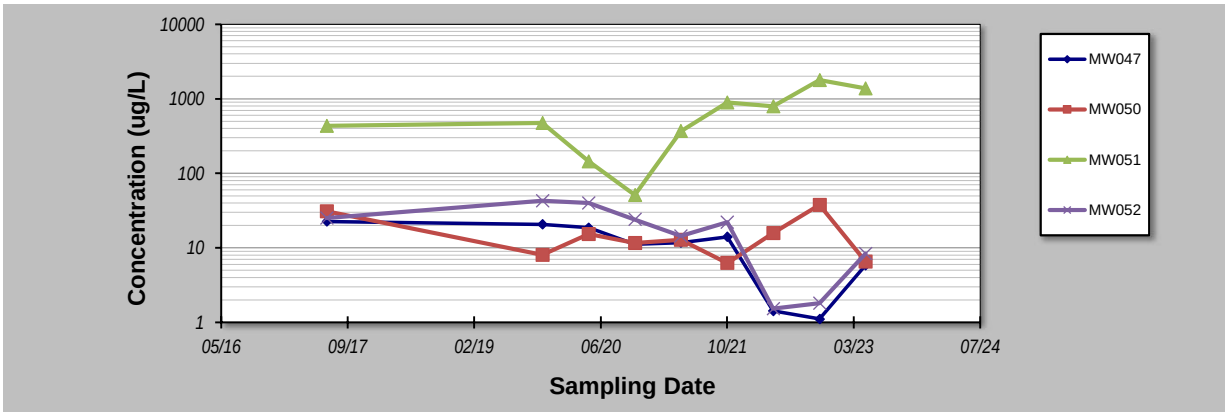
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	7-Jul-23	Job ID:	60612562
Facility Name:	Eastern airfield boundary	Constituent:	Sum of PFHxS and PFOS
Conducted By:	JR	Concentration Units:	ug/L

Sampling Point ID:	MW047	MW050	MW051	MW052			
Sampling Event	Sampling Date	SUM OF PFHXS AND PFOS CONCENTRATION (ug/L)						
1	Jul-17	22.6	31	434	25.1			
2	Nov-19	20.7	8.04	473	43			
3	May-20	18.6	15.3	145	39.9			
4	Nov-20	11.2	11.6	51.4	24.1			
5	May-21	11.7	12.8	367	14.5			
6	Nov-21	14	6.26	895	22.1			
7	May-22	1.42	15.7	793	1.53			
8	Nov-22	1.11	37.8	1780	1.81			
9	May-23	5.86	6.57	1380	8.39			
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.67	0.69	0.82	0.75			
Mann-Kendall Statistic (S):		-26	-2	18	-24			
Confidence Factor:		99.7%	54.0%	96.2%	99.4%			
Concentration Trend:		Decreasing	Stable	Increasing	Decreasing			



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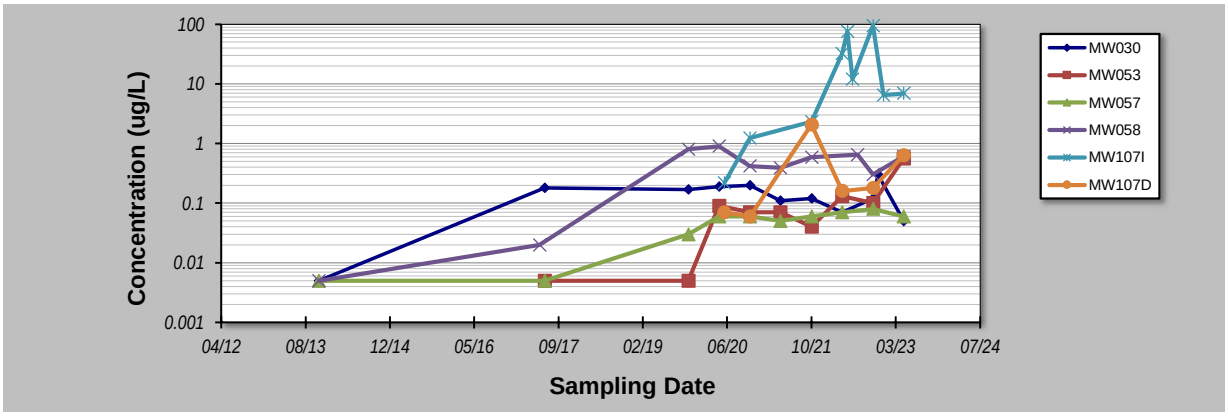
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	7-Jul-23	Job ID:	60612562
Facility Name:	NW Site boundary adjacent FTF + AFCTA	Constituent:	PFOA
Conducted By:	JR	Concentration Units:	ug/L

Sampling Point ID:	MW030	MW053	MW057	MW058	MW107I	MW107D
Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)					
1	Nov-13	0.005		0.005	0.005		
2	Jun-17				0.02		
3	Jul-17	0.18	0.005	0.005			
4	Nov-19	0.17	0.005	0.03	0.8		
5	May-20	0.19	0.09	0.06	0.9		
6	Jun-20					0.22	0.07
7	Nov-20	0.2	0.07	0.06	0.42	1.24	0.06
8	May-21	0.11	0.07	0.05	0.39		
9	Nov-21	0.12	0.04	0.06	0.59	2.32	2.07
10	May-22	0.07	0.13	0.07		32.4	0.16
11	Jun-22					75.6	
12	Jul-22					12	
13	Aug-22				0.65		
14	Nov-22	0.12	0.1	0.08	0.3	95	0.18
15	Dec-22	0.3					
16	Jan-23					6.5	
17	May-23	0.05	0.56	0.06	0.61	6.91	0.63
18							
19							
20							
Coefficient of Variation:		0.59	1.43	0.54	0.64	1.37	1.48
Mann-Kendall Statistic (S):		-2	22	30	9	16	7
Confidence Factor:		53.0%	98.8%	99.7%	75.8%	94.0%	86.4%
Concentration Trend:		Stable	Increasing	Increasing	No Trend	Prob. Increasing	No Trend



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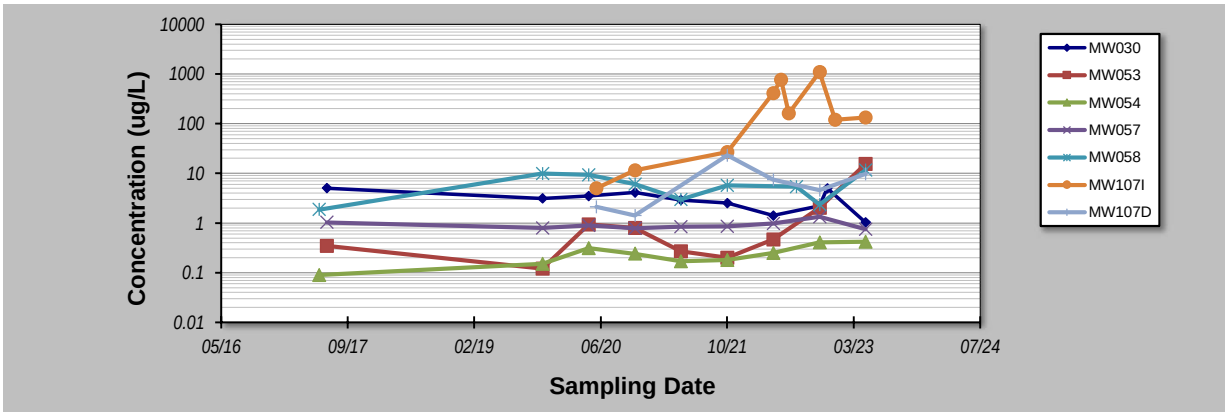
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	7-Jul-23	Job ID:	60612562
Facility Name:	NW Site boundary adjacent FTF + AFCTA	Constituent:	Sum of PFHxS and PFOS
Conducted By:	JR	Concentration Units:	ug/L

Sampling Point ID:	MW030	MW053	MW054	MW057	MW058	MW107I	MW107D
Sampling Event	Sampling Date	SUM OF PFHXS AND PFOS CONCENTRATION (ug/L)						
1	Jun-17			0.09		1.86		
2	Jul-17	5.03	0.35		1.03			
3	Nov-19	3.12	0.12	0.15	0.79	9.9		
4	May-20	3.49	0.93	0.31	0.89	9.34		
5	Jun-20						5	2.11
6	Nov-20	4.12	0.8	0.24	0.78	6.05	11.5	1.41
7	May-21	2.91	0.27	0.17	0.84	2.98		
8	Nov-21	2.51	0.2	0.18	0.86	5.68	26.7	23
9	May-22	1.42	0.47	0.25	0.98		411	7.54
10	Jun-22						766	
11	Jul-22						161	
12	Aug-22					5.43		
13	Nov-22	2.22	2.03	0.41	1.33	2.36	1100	4.59
14	Dec-22	5						
15	Jan-23						120	
16	May-23	1.03	15.4	0.42	0.75	11.7	132	9.73
17								
18								
19								
20								
Coefficient of Variation:		0.44	2.17	0.46	0.20	0.57	1.27	0.99
Mann-Kendall Statistic (S):		-23	14	24	0	-2	16	5
Confidence Factor:		97.7%	91.0%	99.4%	46.0%	54.0%	94.0%	76.5%
Concentration Trend:		Decreasing	Prob. Increasing	Increasing	Stable	Stable	Prob. Increasing	No Trend



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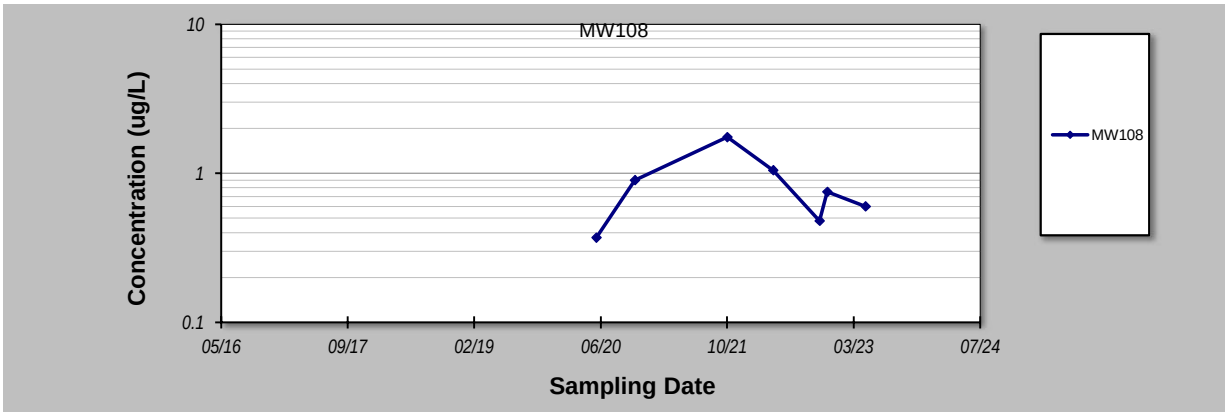
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	7-Jul-23	Job ID:	60612562
Facility Name:	NW Site boundary adjacent FTF + AFCTA	Constituent:	Sum of PFHxS and PFOS
Conducted By:	JR	Concentration Units:	ug/L

Sampling Point ID: **MW108**

Sampling Event	Sampling Date	SUM OF PFHXS AND PFOS CONCENTRATION (ug/L)
1	Jun-17	
2	Jul-17	
3	Nov-19	
4	May-20	
5	Jun-20	0.37
6	Nov-20	0.9
7	May-21	
8	Nov-21	1.75
9	May-22	1.05
10	Jun-22	
11	Jul-22	
12	Aug-22	
13	Nov-22	0.48
14	Dec-22	0.75
15	Jan-23	
16	May-23	0.6
17		
18		
19		
20		
Coefficient of Variation:		**0.55**
Mann-Kendall Statistic (S):		**-1**
Confidence Factor:		**50.0%**
Concentration Trend:		Stable



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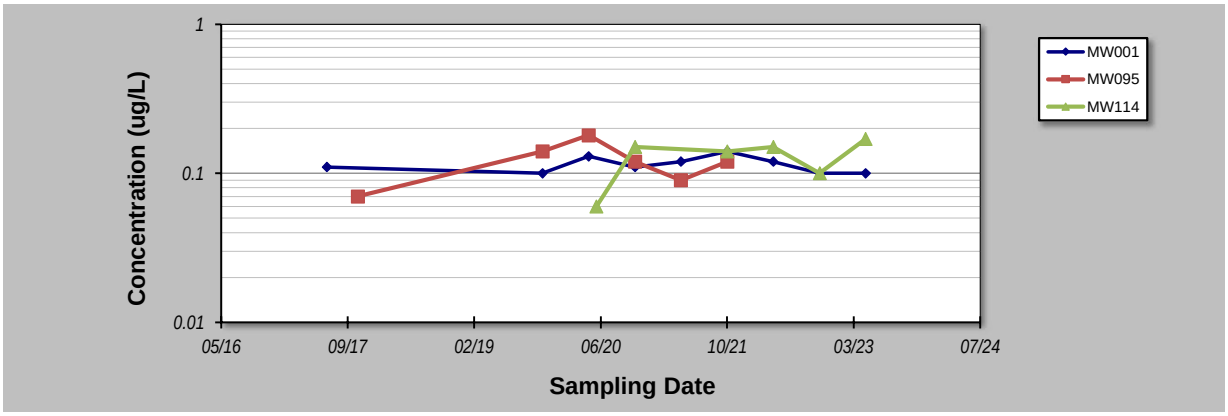
for Constituent Trend Analysis

Evaluation Date:	7-Jul-23	Job ID:	60612562
Facility Name:	Site Boundary with Rickabys Creek	Constituent:	Sum of PFHxS and PFOS
Conducted By:	JR	Concentration Units:	ug/L

Sampling Point ID:	MW001	MW095	MW114				
Sampling Event	Sampling Date	SUM OF PFHXS AND PFOS CONCENTRATION (ug/L)						
1	Jul-17	0.11						
2	Nov-17		0.07					
3	Nov-19	0.1	0.14					
4	May-20	0.13	0.18					
5	Jun-20			0.06				
6	Nov-20	0.11	0.12	0.15				
7	May-21	0.12	0.09					
8	Nov-21	0.14	0.12	0.14				
9	May-22	0.12		0.15				
10	Nov-22	0.1		0.1				
11	May-23	0.1		0.17				
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.12	0.32	0.32				
Mann-Kendall Statistic (S):		-3	0	6				
Confidence Factor:		58.0%	39.3%	81.5%				
Concentration Trend:		Stable	Stable	No Trend				



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
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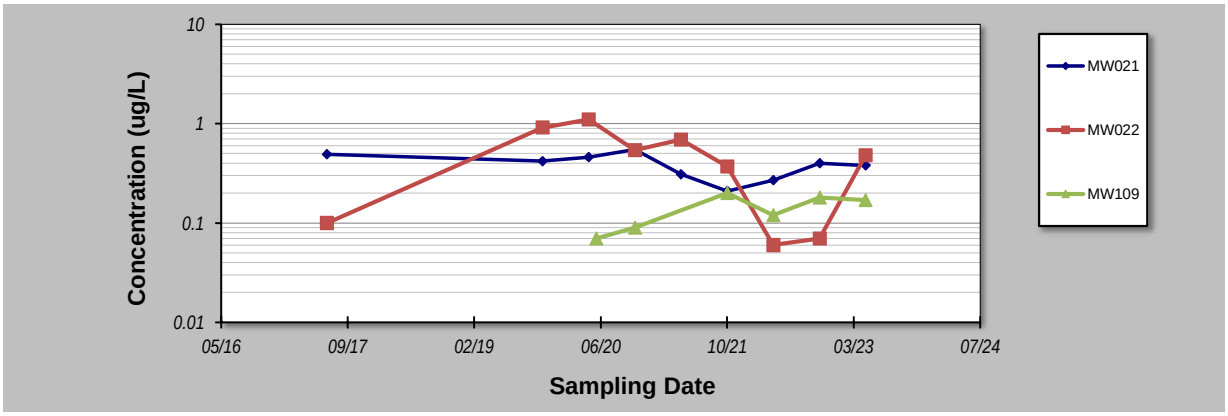
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	7-Jul-23	Job ID:	60612562
Facility Name:	STP and Off-Site: Bakers Lagoon	Constituent:	PFOA
Conducted By:	JR	Concentration Units:	ug/L

Sampling Point ID:	MW021	MW022	MW109				
Sampling Event	Sampling Date	PFOA CONCENTRATION (ug/L)						
1	Jul-17	0.49	0.1					
2	Nov-19	0.42	0.91					
3	May-20	0.46	1.1					
4	Jun-20			0.07				
5	Nov-20	0.55	0.54	0.09				
6	May-21	0.31	0.69					
7	Nov-21	0.21	0.37	0.2				
8	May-22	0.27	0.06	0.12				
9	Nov-22	0.4	0.07	0.18				
10	May-23	0.38	0.48	0.17				
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.28	0.78	0.38				
Mann-Kendall Statistic (S):		-14	-12	7				
Confidence Factor:		91.0%	87.0%	86.4%				
Concentration Trend:		Prob. Decreasing	Stable	No Trend				



Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
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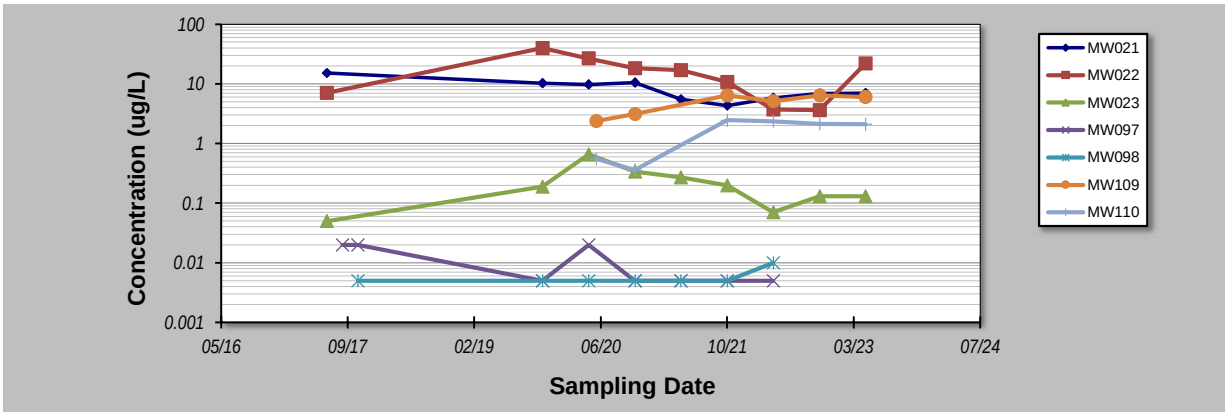
GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	7-Jul-23	Job ID:	60612562
Facility Name:	STP and Off-Site: Bakers Lagoon	Constituent:	Sum of PFHxS and PFOS
Conducted By:	JR	Concentration Units:	ug/L

Sampling Point ID:	MW021	MW022	MW023	MW097	MW098	MW109	MW110
Sampling Event	Sampling Date	SUM OF PFHXS AND PFOS CONCENTRATION (ug/L)						
1	Jul-17	15.2	7.05	0.05				
2	Sep-17				0.02			
3	Nov-17				0.02	0.005		
4	Nov-19	10.3	40	0.19	0.005	0.005		
5	May-20	9.74	26.7	0.66	0.02	0.005		
6	Jun-20						2.37	0.55
7	Nov-20	10.5	18.4	0.34	0.005	0.005	3.1	0.36
8	May-21	5.51	17	0.27	0.005	0.005		
9	Nov-21	4.33	10.7	0.2	0.005	0.005	6.37	2.46
10	May-22	5.79	3.73	0.07	0.005	0.01	5.11	2.37
11	Nov-22	6.87	3.63	0.13			6.41	2.12
12	May-23	7.02	22.1	0.13			6.06	2.11
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.41	0.72	0.82	0.73	0.33	0.36	0.57
Mann-Kendall Statistic (S):		-14	-14	-7	-13	6	9	1
Confidence Factor:		91.0%	91.0%	72.8%	92.9%	76.4%	93.2%	50.0%
Concentration Trend:		Prob. Decreasing	Prob. Decreasing	Stable	Prob. Decreasing	No Trend	Prob. Increasing	No Trend



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